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ABSTRACT

Comprising a study of the application of linguistics to literacy, the 16 papers in this book were prepared by contributors from both developing and developed nations. The papers in the first section illustrate the relevance of certain developments in theoretical and applied linguistics, sociolinguistics, and psycholinguistics to literacy teaching. Specific topics discussed include the linguistics dimension for adults learning to read, problems of literacy in diglossic communities, the making of alphabets, techniques for functional literacy in indigenous languages and the national language, discourse analysis and literacy, and literacy and language development. In the papers in the second section of the book, certain of the issues developed theoretically in the first section are exemplified in relation to the literacy situation in different areas of the world. In addition, these papers give more details about literacy policies in those areas. Specific topics discussed are the development of literacy in the Soviet Union, literacy in Ibero-America and the Caribbean, problems of literacy in Sub-Saharan Africa, illiteracy in Tunisia, aspects of literacy teaching in the People's Republic of China, adult illiteracy in the United States, and teaching reading to illiterate adults in Thailand. A final section provides an overview of the subject and a selected bibliography. (FL)

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Language and Literacy: Current Issues and Research

edited by: Thomas P. Gorman

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Publisher's Note

Recognizing the important role of linguistics and language choice in the promotion of literacy, the Unesco General Conference at its 17th Session (Paris, 1972) mandated the International Institute for Adult Literacy Methods (IIALM) to promote research activities "more especially concerning the use of mother tongue in literacy training" (Resolution 1.251 c.iii).

Pursuant to this resolution, the IIALM undertook a review of the literature bearing upon this subject and published two bibliographies covering both research studies and practical experiences. An article based upon a review of the literature prepared by Mr. David Kahler, an Institute Staff Member, appeared in *Literacy Work* (Vol. IV, no. 2, 1974). Included with this article was a review by Dr. E. O. Odokara, Division of Extra-Mural Studies, University of Nigeria, Nsukka, on the use of Igbo mother tongue for promoting work-oriented literacy in Nigeria. An extensive bibliography accompanied the article and review.

It was realized, however, that the application of linguistics to literacy, and more especially, the choice of language for literacy instruction is subtle and must be based upon an in-depth understanding of a particular situation as well as general linguistic and cultural considerations. This is particularly true in the developing regions of the world, where mother tongues or "home languages" are numerous, and educational resources are scarce. In order to give this subject the attention required, the Institute commissioned the present reader edited by Dr. Thomas P. Gorman.

Dr. Gorman is a recognized expert in the application of linguistics to literacy who has gained practical experience through his work in Africa. He is at present heading a research team at the National Foundation for Educational Research in England and Wales to develop an instrument to measure standards of attainment in literacy skills in schools and also to oversee the development of a diagnostic test for adult illiterates. He has served on the faculties of the University of California, Los Angeles U.S.A. and the University of Essex, U.K.

Language and Literacy, as the title implies, is a study of the application of linguistics to literacy. As Dr. Gorman indicates in his excellent and concise introduction, the discipline of linguistics offers many insights, as well as some suggestions and prohibitions, to planners and organizers of literacy programmes. The need to teach learners to read in a language they already are able to speak is emphasized in several papers. The contributors to this volume come from both the developing and developed nations of the world. They are internationally recognized authorities on the subjects they cover.

The authors have been urged to express their opinions and conclusions with frankness. Naturally, these are individual opinions and do not necessarily reflect the views of the International Institute for Adult Literacy Methods, or its sponsors.

As Director of the Institute, I wish to express gratitude to Dr. Gorman and his contributors for the excellence of this reader. Appreciation is also expressed to the publishers for permission to quote from or reproduce articles. Acknowledgement of this is given in footnotes.

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Introduction
Applications of Linguistics to Literacy Problems

Thomas P. Gorman

The purpose of this introduction is to identify certain themes that will be found to recur in the papers in this volume and to point to certain assumptions that are shared by the majority of the contributors.

One assumption that is frequently implied if not frequently articulated is expressed by Dr. Mohamed Maamouri in his statement that 'Illiteracy is an essentially linguistic problem which is largely conditioned by educational, psychological and social factors.' While it will be recognised that this observation requires elaboration and qualification its validity is, in part, illustrated by most of the papers included in this volume.

The articles in the first section of the book have been selected (or solicited) to illustrate the relevance of certain developments in theoretical and applied linguistics, sociolinguistics and psycholinguistics to literacy teaching.

In the first paper, Rose-Marie Weber considers some characteristics of the reading process and considers also certain strategies that the adult learner might be thought to employ in learning to read. In outlining the nature of this learning process she emphasises an argument that occurs repeatedly in different forms in these essays, *viz*., 'When language is fixed in writing it takes on a separate identity, serving different functions and following different principles of organisation from its spoken counterparts . . .'

Dr. Weber's contention that the learners' task is frequently 'to learn an alternative variety of the language as they become literate' is exemplified very clearly in M. Sugathapala De Silva's paper which follows, in which he discusses problems of literacy in diglossic communities. As defined by Charles Ferguson, the term 'diglossia' is applied to situations in which in addition to the primary dialects of the language there is a very divergent written variety which is not used by any section of the community for ordinary conversation and which can only be acquired through a process of formal education. Dr. De Silva discusses the different degrees of diglossia in three linguistic communities and illustrates the different attitudes taken in those communities towards the literary varieties, showing how such varieties can in certain cases be invested with symbolic significance as one embodiment, as it were, of the cultural heritage of the society.

Two issues might appropriately be drawn attention to here: the first is that diglossic situations, so defined, are far more common than is generally recognised; and secondly that there are invariably strong social and cultural forces operating in societies with literary traditions, that serve to inhibit changes in writing systems that may appear to be requisite from the point of view of literacy planning.

The past and present situation in Tunisia, which is described by Mohamed Maamouri in the second section, serves to exemplify characteristics of the diglossic situation discussed earlier by Dr. De Silva in relation to language communities on the Indian sub-continent. Dr. Maamouri demonstrates that the prestige of modern standard Arabic, which nobody speaks natively, is such that literacy teaching in Tunisian Arabic is not at present generally feasible. He then discusses issues relating to the inherent difficulties which are encountered with both the Arabic writing system and the Arabic script, which serve to make the goal of widespread literacy problematic; at the same time he is cognisant of the complex social factors that serve to forestall changes in this venerable medium and to discourage the extensive written use of local varieties of the language.

In recent years, linguists have come to be increasingly aware of the sociolinguistic and sociocultural implications of their work in many instances. In their respective articles, for example, both Jack Berry and Sarah Gudschinsky recognise that the acceptance or rejection of orthography has little to do with its linguistic adequacy – much though this fact may be regretted by the linguists involved. There may be numerous circumstances affecting such acceptance, such as the influence of bilinguals literate in a second language and the status factors associated with the use of such a language, and the orthographic features associated with it. The existence and the relative significance of such factors can frequently be determined by sociolinguistic studies.

The development of orthographies has generally been regarded as the major contribution that the linguist has to make to literacy projects involving the use of previously unwritten languages, and certainly this is an enterprise in which the technical expertise of the linguist is most evidently applied. The two papers under discussion indicate how recent developments in linguistic theory have affected the way the linguist approaches this task, which is now understood to involve far more than the graphemic representation of what are judged to be the significant features of the sound system of the language. As Dr. Berry remarks – 'Neither modern linguistics nor psycholinguistics require that a writing system should be phonetic or phonemic . . .' A serious study will now focus, additionally, on the morphophonemic and syntactic components that underlie phonological features; and, if literacy readers are to be developed, the linguist also needs to analyse sentence and clause structure, paragraph types and discourse genres, in so far as this is feasible. Many linguists would also now maintain that the psycholinguistic 'reality' of the units selected for graphemic representation needs to be determined in tests with speakers of the language concerned, even before the social acceptability of the system devised is investigated. Such investigation necessarily involves study over a number of years, though it is no doubt possible, if not generally desirable, for a linguist to devise a transitional writing system in a relatively short time.

Robert Longacre discusses the reason it is necessary to investigate discourse genres in particular languages in the preamble to his paper on this topic. He argues that 'materials to teach reading and for the new literate to read must be in the language that the learner actually speaks; whereas it is only too clear that literacy textbooks and reading materials frequently fall woefully short of being in a language that anyone speaks.' A related issue is raised in the second article by Dr. Gudschinsky in which she suggests that 'in most countries teaching is done very wastefully in that we begin not with what the pupil already speaks, but with the literacy variety which he must learn as a semi-foreign language, or with some kind of "primerese" which is not spoken by anybody'. She considers that readers should first be taught to read (and, if necessary, to speak) the standard colloquial variety of a language before they are expected to read the standard literary variety which is likely to be markedly different from both standard and non-standard colloquial varieties. In this second paper, Dr. Gudschinsky is primarily concerned with the situation in Latin and South America, but it will be recognised that the problem is a pervasive one. All speech communities, whether multilingual or ostensibly monolingual, are characterised by the use of a number of language varieties of different types; and one of the tasks of the linguist involved in literacy activities should be to recognise and, if possible, to analyse salient varieties in the linguistic repertoire of the community with which he is concerned. Such analysis is necessary for the preparation of pedagogically appropriate materials.

While none of the articles in this volume focuses primarily on issues relating to the pedagogical application of language studies, it is very clear that wholly adequate teaching materials cannot be developed without the research basis earlier described as being necessary for the development of a writing system. The work of Dr. Gudschinsky in itself provides abundant evidence in support of this assumption. This point is made, in passing, simply to emphasise that a degree of linguistic expertise needs also to be applied at the stage of materials preparation.

In the final paper in the first section of the book, Francis X. Karam, a sociolinguist, discusses further questions relating to differences in form and function of spoken and written languages. He reflects on the development of standardised literary languages in certain states and the social changes that accompanied and in some cases determined such development. He is concerned, in particular, to consider the functions of the written word in societies at different stages of development in the context of other communication systems and alternative modes of transmitting information. His paper illustrates the point that the functional range of particular languages and the uses of literacy generally are issues that need to be investigated in each society in which literacy planning is underway.

In the second section of the book, certain of the issues developed theoretically in the first section are exemplified in relation to the literacy situation in different areas. The papers also serve to give more details about literacy policies adopted in these areas.

Dr. E. Glyn Lewis illustrates certain language planning processes in his discussion of processes of code selection and stabilization and of lexical elaboration with regard to the development of written forms of a number of minority languages spoken in the Soviet Union. He considers, also, aspects of the functional differentiation of the literary languages that were created, in relation to the use of Russian, as a consequence of the consistent pursuit of a bilingual policy in administration and education. His paper points to linguistic problems that are more complex and intractable than those involved in the development of orthographic systems; and such problems can only be dealt with adequately in a programme of literacy planning that is sustained over many years.

Charles Ferguson discusses ways in which policy-makers in The People's Republic of China are dealing with the question of literacy teaching in the national language, Putonghua. The general policy is that initial literacy should be achieved in the language; and to facilitate this policy, speakers of Chinese who do not speak a form of the national language natively are initially taught to read using a phonetic script in roman letters (Pinyin). There is a subsequent transition to the more complex ideographic script, which has also undergone certain modifications in the way of character simplification.

The national language policy in China serves to illustrate approaches to several different types of language planning. It has involved the *codification* of a form of the language characterised by a variety of pronunciation based on the Peking dialect, grammatical features associated with the northern dialects and a lexicon influenced by the work of approved modern writers. In so far as there are attempts to foster styles of writing and speech in which the models of emulation are the workers and peasants the policy might be said to entail a process of language *cultivation*. The basic problem to be faced is that of the *standardisation* of the language variety selected, i.e. its acceptance throughout the speech community as a supradialectal norm. A secondary set of problems have involved the process of *graphisation* particularly in regard to the development of a romanised script for use in initial literacy activities, and the *simplification* of the traditional orthographic system. Finally, as mentioned earlier, the policy entails lexical *elaboration* – the development of new terminology – as well as what might be termed lexical *elimination* or displacement i.e. the rejection of terminology and usage not thought to be appropriate to contemporary social and political consciousness. In addition to such elements of corpus planning, a language planning programme of this nature necessarily involves strategies for extending the functional range and uses of the language variety involved. It is now generally recognised that language planning of the types discussed is facilitated by the involvement of language specialists at each stage of policy development, i.e. in the appraisal, formulation and selection of particular policies as well as at the stages of political implementation and review.

Yolandra Lastra's paper deals with the situation in Ibero-America and the Caribbean – a region in which bilingual literacy policies have generally not been pursued, even in countries where over half the population speak languages other than the official language – although policies naturally vary from state to state and from time to time within the same state. The paper was written over ten years ago and certain of the statistics require supplementation and updating; it has been included, however, because Dr. Lastra's comprehensive analysis of the situation has not been superseded by any subsequent work that would invalidate her conclusions or suggestions for research.

The same point can be applied to the contribution by Philip Foster, whose appraisal of the situation in Africa and consideration of the mass literacy campaigns previously carried out, leads him to the sobering conclusion that under present social and economic conditions it is highly unlikely that adult literacy campaigns can make a substantial difference to the level of literacy in African states. There are many reasons for this – apart from the low priority accorded to adult literacy projects by policy makers who are obliged to allocate scarce resources; one reason being the selective attitudes adopted by adults themselves to acquiring reading and writing skills in particular languages – attitudes that are related to the functional range and applications of these languages and to the type of written materials available in them. Dr. Foster also makes the point in connection with post-literacy activities that individuals cannot be expected to maintain newly acquired literacy skills through the re-reading of an elementary primer used in a literacy campaign or the occasional perusal of a government leaflet – a fact that is generally acknowledged, but not for that reason generally avoided.

The final contribution in the second section by David Harman discusses approaches adopted in literacy projects in Thailand and elsewhere that took account of the need to sustain adult motivation in the process of literacy acquisition. In the course of his analysis, Dr. Harman discusses studies that have been undertaken with regard to the retention of literacy skills. While he does not write as a linguist, he raises issues of basic concern to all concerned with literacy planning and which are not directly dealt with elsewhere in this volume.

The second contribution of Dr. Weber serves to illustrate the persistence of problems of illiteracy in a technologically advanced society. She raises the question as to the definition of functional literacy in such a setting – though the issue is, of course, relevant to all settings. While no generally satisfactory answer can yet be provided as to what precisely it means for a person to have the skills necessary to enable him to 'engage in all those activities in which literacy is required for effective functioning in his group or community' (Unesco, 1965), the development of tests of adult-level achievement is proceeding with reference to which the concept of functionality as it applies in the United States can eventually be clarified. Dr. Weber refers also to studies relating to the recruitment and motivation of learners and to the preparation of adult-level materials, all of which research has relevance to literacy activities in other states. However, despite extensive research and what by the standards of most other countries constitutes the massive funding of literacy projects, the problem of illiteracy has not been eradicated; and, it is perhaps safe to assume, that it will not be permanently eradicated in the United States or in other technologically advanced societies. The extension of knowledge and of specialization ensures that, in some senses, most members of complex societies are functionally illiterate in certain areas; the literacy problems in such societies, therefore, differ from those of less technologically advanced societies in degree but not in kind.

In the concluding essay I have attempted to consider questions relating to the attainment of literacy in the 'mother tongue' in the light of developments in the study of language and literacy that have been advanced by various scholars in this volume and elsewhere. I have suggested that on various theoretical and practical grounds there is a need for a reconsideration and clarification of the issues involved, and I have ventured to suggest ways in which such a re-analysis might be undertaken.

Part I

Learning to Read: The Linguistic Dimension for Adults

Rose-Marie Weber

Educators interested in bringing the conclusions of current reading research (Gibson and Levin, 1975) directly to bear on the problems of adults learning to read can be easily disappointed and discouraged. Much research has focused on the mental processes that skilled, fluent readers engage in so as to make sense out of print, analysing the ways that they look at, organise, and remember what they see, pay attention, exclude irrelevancies, attach a linguistic message to the information they take in, and integrate this message with their background knowledge. Although this work has resulted in an appreciation for the complex and subtle abilities that skilled readers bring into play, it is far from complete. Besides, it has so far suggested only in broad terms how learners refine and reorganise old abilities as well as acquire new ones in becoming literate. When this question has been addressed, it is the child beginning at about age six who is regarded as the typical learner. Because children's mental abilities are changing as they become skilled readers, it is not at all clear to what degree their learning to read is dependent on or itself influences maturation in language, learning strategies or other abilities. When the question of how adults learn and solve problems has been addressed, both in literate (e.g. Eisdorfer and Lawton, 1973) and preliterate societies (Cole and Scribner, 1974), their mental processes have not been examined in ways that have clear relevance to the tasks involved in learning to read. In short, there is little in current research that might be directly applied toward teaching adults to read.

Nevertheless, a perspective on readers – both accomplished and aspiring – has developed within current research which must be considered seriously by adult educators. From this perspective (Kavanagh and Mattingly, 1972; Levin and Williams, 1970; Smith, 1971) accomplished readers are seen as active searchers for meaning who, guided by their purpose in reading, can sample and categorise information from a page, integrate it with linguistic and general knowledge, and in turn narrow down what will appear next. They are able to regulate visual skills and simultaneously apply their knowledge of their language with no conscious effort so as to make sense of what they see. Aspiring readers already have these capacities as part of the mental equipment that they use in their everyday life to look at and organise the world and to understand speech. To become literate they must coordinate these abilities in ways that they have not done before, and of course acquire new knowledge about the way that their language is represented in written form. This view of fluent reading and its acquisition remains vague and fragmentary, however, and subject to much disagreement in detail (Gibson and Levin, 1975). It fails to provide a rigorous analysis of the relationship between what novice readers meet through instruction and what goes on in their heads, so that the optimal way to organise new information for learners remains elusive. Yet the conviction remains that in the long run the best foundation for instruction is a finely-drawn picture of the nature of reading and of the possible routes to becoming literate.

Since reading is a linguistic skill, part of the picture of reading and learning to read includes readers' knowledge of language and the ways that they apply it in reading. The goal of research in linguistics has been precisely to describe this knowledge. By specifying the details of linguistic organisation that go into the construction of sentences, by analysing the structure of the sound system of languages, by examining the relations between speakers' intentions and linguistic expression, it has attempted to make evident the store of elements and principles that enable speakers and hearers to successfully understand and be understood from one occasion to another. With respect to reading, linguistic research has attempted to make clear the knowledge that readers must have available to successfully understand written language (Wardhaugh, 1969). This includes, of course, the characteristics that distinguish the written form of a language and so constitute what new speakers must acquire to be literate. In this respect, linguistic analysis can provide insight into the magnitude of the task that new literates face. It stops short, however, of characterising how they learn to read or, once they become skilled, how they put their linguistic knowledge into play in order to comprehend. These are basic issues in the psychology of reading and, more generally, the psychology of language, where they are under fervent discussion (e.g. Fodor, Bever, and Garrett, 1974).

In these few pages the distinctive characteristics of written language that adults may encounter on the way to becoming literate in their mother tongue – its function in communication, its specialised syntax and vocabulary, and its relation to the sound system – will be sketched in broad terms. These characteristics differ from one language to another, but this diversity will only be suggested here. The recognition of the special nature of written languages does not imply that they should necessarily be taught in any explicit way, but rather that they should be taken into consideration in any attempt to understand the dimensions of learning to read with purpose and flexibility. In this brief discussion, readers will be referred to as beginning or skilled, as though the acquisition of reading skill is not the drawn-out process that it usually is. In fact, the intention here is to substantiate the complexity of the process with respect to language.

The linguistic background of adults

Consider first what linguistic knowledge adults bring to the task of learning to read. Although individuals differ in skills and by roles, although speech communities differ with respect to norms, around the world people distinguish occasions and their hearers by their use of formal or informal speech styles, serious or jocular, deferent or commanding, and so on. They know the principles that govern the structure of speech events as they tell stories, perform rituals, express affection, ask and answer questions (Hymes, 1974). In comparison to children, they have had much richer experience with language, having come to use it to different purposes in a variety of situations. Their learning of new varieties of language form and use, although never necessarily complete, has slowed down with their maturity in society. Adults may well be as able as children to extend their competence in language to the new uses that reading entails, but they may be less receptive to a new form of their language if it seems to serve no immediate purpose in their lives.

The knowledge of spoken language that adults bring to reading is abstract and complex, as extensive and intensive analysis of unwritten languages have shown (Friedrich, 1971) and the few studies of non-standard varieties of written languages have affirmed (Labov, 1972). They control a rich set of grammatical principles by which sentences are formed, a discriminating vocabulary that participates in the build-up of sentences, an intricately structured sound system, and complicated rules for interpreting the relations that hold between language and experience. Children, in fact, share much of this knowledge, but adults' more varied and longer participation in social life has yielded them a more subtle and flexible grammatical system and more finely-textured vocabulary. Furthermore, adults may command in their spoken repertory a formal variety of the language or one highly influenced by an important second language that more closely resembles written language than the everyday variety that they share with children.

Adults may also bring to reading the ability to analyse language as an object, that is, to make conscious judgments about its form apart from its meaning. Such metalinguistic analysis might include, for instance, judging whether two words begin with the same sound, how many syllables there are in a given word, or whether a sentence is grammatically well-formed. Many children around age six have difficulty learning to do these kinds of tasks, even though some may be requisite to grasping instruction on sound-character correspondences in alphabets or syllabaries. In fact, such inabilities may be the primary source of reading difficulties for many children (Mattingly, 1972). Adults might be expected to find metalinguistic tasks easier by virtue of their mental maturity and their possible experience in their spoken language with word play and poetry. Whether or not they do is not clear, for experience shows that many show an uneasiness, for instance, in learning to segment the speech stream into individual sounds (Gudschinsky, 1973, p. 72).

Another aspect of the background that adults bring to reading is their disposition toward written language and its uses. Whether or not the variety of the language to be read is appropriate in the eyes of new learners may directly influence willingness to learn. Although educators may have good reason to provide instruction in a non-standard dialect or special orthography before moving on to the standard variety, learners may reject instruction with the feeling that they are being misled from their goal of learning the 'real' language.

In communities where the incidence of literacy is already high, adults may have a rather clear idea of the functions of written language, such as keeping records and disseminating news and technical knowledge. Literacy may then appear to be accessible to the extent that taking advantage of such functions may seem accessible or desirable. For instance, in a given community, some people may feel that it is presumptuous of them to seek knowledge outside traditional domains; others may feel that they should learn to read in order to participate in the creation of positive social change; still others may feel in conflict. These sorts of attitudes influence the most mechanical aspects of learning to read. Like learning a second language (Lambert and Gardner, 1972) or another dialect (Labov, 1972a), learning to read is sensitive to unconscious values that may, on the one hand, cause people to look and feel incompetent or, on the other, stir them to mastery of complex skills in a surprisingly short period.

Learning new functions

Learning to read with effectiveness is not just a matter of mastering the written form of a language, but also learning new uses and purposes for it. These uses follow from the special qualities of written language itself, particularly its relative permanence and its independence from immediate social context. Its permanence, for instance, provides a culture with an external memory, making the record of daily events, instructions, expressions of belief, and the like available to readers through long periods of time and across wide distances. Its independence from face-to-face encounters, for example, allows writers to formulate and reformulate complex, impersonal texts as well as more spontaneous messages, and enables readers to take information in at their own speed and as frequently as they may want.

Of course, communities differ in the purposes for written language and the conditions that individuals and institutions take into account when choosing it over speech. The learning demands on new literates, therefore, vary from place to place and, along with social change, through passing time. In some communities, the written language serves primarily to preserve or reveal the sacred word. In others, it may extend to carrying on the affairs of the state, commerce, and formal education toward those ends, but may hardly affect daily personal life. In still others, it may constitute not only the enabling condition for the character of the major institutions in the society, but may also enter into the work, expression of feelings, and intellectual development of most people. In fact, systematic descriptions of all the possible and appropriate ways for using written language along with face-to-face speech and electronic speech in a society have scarcely been undertaken (Basso, 1975; Goody, 1965). Furthermore, changes in the functions of written language, other than for literature (e.g. Jones, 1953), have not been followed so closely as the spread of minimal reading skills (e.g. Cipolla, 1969). Although success in learning to read may create the possibility for learners to expand their linguistic competence in new and desirable ways, the society may not be able to provide the conditions to sustain new functions for all members except through important changes in social structure and economic prosperity (e.g. Ruiz, 1963).

Whatever the functions of written language may be, they demand that learners acquire principles of interpretation that allow them not only to make literal sense out of print, but also to penetrate the situation. In English, for instance, readers must recognise that the source and significance of a street sign saying *Stop* is different from one saying *Drink Fizzle*; that the date on a document indicates the time of writing and the verb tenses are used from this perspective (*I am feeling better today. By the time you read this, I'll be home.*); that a newspaper headline synopsises the story that appears below; that a name and address in one position indicates the addressee, in another position the sender. Such small matters can accumulate quickly as new learners encounter them.

Becoming literate, then, is much more than learning to deal with language in a new form. It requires engaging with familiar topics in new ways. It also requires learning to use language that deals with new topics such as technical subjects, political ideas, real and fictitious people that may have little foundation in experience other than reading experience. Becoming a skilled reader grows from the interplay between identifying linguistic elements and acquiring the background for interpreting them. For some adults, coming to deal with language that creates contexts apart from daily affairs may well be the major barrier to the acquisition of reading (Harman, 1974).

Learning a new form

By virtue of knowing how to speak and understand their mother tongue, people know a good deal about reading it. For the most part they can apply to understanding print the same linguistic knowledge that they apply to understanding speech – the grammatical organisation in sentences, the structure of the vocabulary, the sound system, and the principles for interpreting texts with respect to experience. But the written language does not mirror its spoken counterpart exactly. Rather, it is governed by somewhat divergent principles that require new readers to extend and refine their linguistic competence. These principles, however, have not been adequately described from one language to another, except for orthography. Nor have safe conclusions been drawn for writing in general (Basso, 1975). Handbooks that offer instruction in good writing provide good leads (for cross-linguistic comparison, see Kaplan, 1972). But they usually concentrate on only one or another genre and rest on many unspoken values and assumptions, so that they fail to capture basic characteristics of written language.

In newly established traditions in writing, people generally do not feel that ordinary speech is appropriate for writing (Ferguson, 1968). They appreciate written language as an exceptional form, akin to speech on special occasions, such as formal ceremonies. In some established traditions, on the other hand, writing may often represent casual speech, but word-for-word transcriptions are rejected as infelicitous and are felt to require editing. By and large, the written variety tends to be at least a notch higher in formality than speech in comparable contexts, for instance, a written business report in contrast to a spoken report at a meeting.

The possibilities for using language as a kind of external memory has led to a range of genres, some with close analogues in speech, others sharply divergent and even unique to writing. The divergent genres, such as labels, dictionaries, and advertisements demand special conventions for understanding and using them. For instance, a telephone directory in English involves alphabetical order, the arrangement of names with family names first, abbreviations, and various type-sizes. The distinctiveness of written language is not so obvious in genres that have analogues in speech, for example, a friendly letter compared to a friendly chat. Yet point for point comparisons of the basic organisation of the message, the means for showing emphasis, and the devices for keeping lines of development clear will reveal differences that may be unfamiliar to new readers.

In general, texts in English are expected to conform to specific standards of spelling, spacing, and organisation of content and to avoid signs of the editing, change of mind, and hesitations that writers can indulge in. Since written texts must stand on their own without support from social setting or immediate feedback from the audience, they are expected to be coherent, precise in their expression, and fully developed to their purpose. There is therefore usually less redundancy in writing, so that the meaning of the text is more compactly presented than it would be in speech. On the other hand, the message may be detailed and elaborated beyond the bounds normal in a comparable spoken context. The means for organising the presentation of the message (*First; In conclusion*), rhetorical devices that indicate the logical relationship of the parts (*To be specific; In contrast*) and cohesive devices for tying new elements to those that have preceded (*A young couple walked by . . . The girl . . . She . . .*) are among the features that are generally more explicitly and exactly expressed in writing. Some of these devices may be widespread in the written traditions of the world, while others may be peculiar to a given language and to given genres (Grimes, 1975).

Although the grammatical principles for structuring sentences usually coincide with those in spoken language, some sentence types are limited to written texts or formal spoken styles, e.g. non-restrictive relative clauses (*His daughter, whom I had seen only once before, entered silently*), and complements in subject position (*That she had been crying was obvious*). Special syntactic forms serve only written purposes, such as instruction labels (*Store in a cool place*), newspaper headlines, and legal documents. The vocabulary of written language includes, of course, a multitude of terms that have flourished as a result of literacy. Many English items having their source in Latin or French may appear in the everyday speech of literate speakers, but would probably not appear in the speech of illiterates, e.g. *retain, amiable, stratified*, in contrast to *keep, friendly, in layers*. Even though new literates in English might be interested in becoming familiar with only a limited range of written material, they cannot avoid specialised syntax and vocabulary.

Most writing traditions have favoured a written form that is basically an extension and elaboration of the spoken variety, so that most learners' primary task is to enlarge on their previous knowledge of the language and to learn how to use it in particular contexts. There may be speakers living in such a tradition, however, whose dialect does not have so close a relationship to the written norm. Their task may be to learn an alternative variety of their language as they become literate, including not only new vocabulary but also morphology – the combination of suffixes and prefixes on word stems – and other grammatical features as well. Such is precisely the task for all learners in some language situations called diglossia, exemplified by the Arabic speaking world and much of South Asia. In this case, the written variety, adopted in speech for some formal speech events by the educated, differ from everyday speech in striking ways. The written variety includes such features as distinctive word order, greater complexity in the expression of grammatical categories such as gender, case, and verb tenses, as well as alternative vocabulary items for even mundane objects (Ferguson, 1959). The learning task for new literates, then, is to learn essentially a closely related second language. In some diglossic situations, new literates may come to learning to read with some knowledge of the formal spoken variety; in others, there may exist a choice of written varieties so that learners can approach reading in a variety closer to their speech, at least at the outset.

Learning to read also entails, of course, getting to know the form for representing a language graphically and the relationship of that form to the spoken language. Alphabetic and syllabic writing systems are more economical to learn than a logographic system like Chinese because they take advantage of the structural economy built into the organisation of a language: the possibility for a small number of meaningless units, namely sounds, to combine with one another to represent an unlimited number of units that have meaning, namely words and their parts. It is obvious that in most writing systems the relationship of the written representation to the spoken language is not always straightforward. Too often there are apparent exceptions to the general principle that a given character corresponds to a given sound or syllable in the language, possibly because the spoken variety and the written variety have changed along different lines. Yet at least some of these exceptions can be resolved in the light of other significant principles of writing systems (O'Neil, 1969; Vachek, 1973; Venezky, 1970).

One such principle that is even built into newly-created writing systems is that a morpheme, either a stem, suffix, or prefix, tends to be represented with the same set of characters, even though it may show variation in its pronunciation from one context to another. In English, for instance, the sequence *negat-* remains constant in spite of differences in stress and vowel quality in *negation* and *negative*; *-ed* stays the same in spite of the differences governed by the sound system in *talked* [t], *whispered* [d] and *shouted* [əd]. Across dialects, styles, and word boundaries, *r*'s may come and go in the flow of speech, but in the writing system they remain, as in the phrase *our older brother.* Another important principle in writing systems is that morphemes that sound alike may be kept apart in writing, such as *sight, site, cite*, and *cyt-*. These two principles may place a learning burden on beginning readers, since they require attention to the identity of specific morphemes, but they probably benefit the fluent reader who can take advantage of this more direct representation of meaning.

A third sort of principle in writing systems is that characters may fall into regular patterning that has no correspondence in the spoken system. An important graphic regularity in English, for instance, is the doubling of consonant letters in certain conditions. The letters do not relate to doubled sounds but rather mark the quality of the preceding vowel as 'short', so that *supper* contrasts with *super* and *holly* with *holy*. Constraints on the distribution of letters in morphemes or words exemplifies another kind of independent patterning in writing systems. In English, for instance, the letter *v* does not appear at the ends of words, but is followed by an *-e*, e.g. *leave, have*. Variation in the shape of characters according to their position in words is important in other systems, such as Arabic. Finally, many languages show strains of foreign sources in the present-day systems, some of these strains so deeply embedded that they are no longer considered foreign, but others that defy the native writing system, e.g. modern French forms in English such as *vis-à-vis* and *apropos.*

Learning a set of characters, their relation to the spoken language, their internal patterning, their alternative versions in type and script, along with various conventions that may exist for spacing, punctuation, and capitalisation demands control over features of language that themselves do not have meaning but only serve to represent it. Although it is possible for learners to master the details of the written system with little conscious attention to it (e.g. Torrey, 1969), experience indicates that they can benefit from explicit instruction, as distracting as it may be from the goal of getting at meaning.

The problem is that the precise principles that readers – either accomplished or aspiring – may use to identify words have not been entirely determined, so that it is not clear what instruction can best serve learners. What they seem to learn or refine at the early stages of reading defies isolation for instructional purposes: the features that distinguish characters from one another, abstract relations between written and spoken segments, the constraints on letter sequences against a background of constraints on sound sequences; the use of preceding grammatical structure and meaning to narrow down the possibilities of subsequent words; strategies to pick up the minimum information from the word display and the context so as to identify words most economically (Gibson and Levin, 1975). From this perspective it would seem that instruction can only guide readers to seek relations, construct strategies out of awareness and form generalisations that they can come in time to apply and integrate automatically. Perhaps adults can benefit more directly than children from explicit instruction in contrast to systematic exposure. But there may be variation in this ability due to culturally-determined learning styles and experience.

The general consideration of differences between spoken and written varieties of language leads to the conclusion that learning to read one's mother tongue requires learning a new variety of the language that differs along various dimensions in subtle and intricate ways. When language is fixed in writing it takes on a separate identity, serving different functions and following different principles of organisation from its spoken counterparts. What the differences may be will vary from one speech community to another and will, of course, vary within it. They have hardly been described in any detail to serve rational programmes in literacy. But it should be recognised that in learning to read, these functions and principles, like motivation, cannot be separated from the technical aspect of identifying the written representation of a word or sentence in the context of use.

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Problems of Literacy in Diglossic Communities

M. W. Sugathapala De Silva

The study of literacy has hitherto been confined to the acquistion of the skills of reading and writing *per se*, without any significant reference to the wider issues which condition the extent and content of literacy (or, indeed, those issues which are conditioned by the nature of literacy). Linguistic communities are stratified in many ways; there are, for instance, social dialects, educated versus uneducated distinction, prestigious versus vernacular usage, and so on and so forth. The values attached to different forms of linguistic behaviour, including the linguistic behaviour of the literates, are not the same in every community, and even in the same community they are not the same at all times. Let me give an example: in Sinhalese, the speech habits of the high caste persons have never enjoyed any prestige *ipso facto*; in Tamil, the speech of the Brahmins has been regarded with esteem until recently; at the present time, however, Brahmin speech does not command the same esteem as before. The impact of linguistic stratification and of the subjective views on linguistic strata upon the concept or definition of literacy as well as the techniques and extent of literacy acquisition have yet to be studied. A society's attitude to literacy is dependent upon a number of factors. The most significant of these, for the present purpose, are the following: the presence or absence of a sense of prestige with which certain forms of linguistic behaviour are held in the society; the associations people make between good written language and any prestigious speech behaviour; the presence or absence of any strong movements dedicated to puristic endeavours; the presence or absence of any significant efforts to confine literary activity to the élitist few, or alternatively, the availability of any attempts to popularise literature beyond the barriers of élitism; and the extent of freedom for innovation that the writers might be allowed to enjoy in a given society. Diglossic linguistic behaviour reflects all these social attitudes and values. I have, therefore, attempted to interpret the meaning of literacy in diglossic circumstances with reference to three diglossic communities, namely the Kannada, Sinhalese and Tamil speaking communities of South Asia.*

As far as I know, this kind of problem has never been analysed in the overall study of literacy. Owing to this pioneering nature of my survey, therefore, it will be required of me to justify why I chose diglossia, and then why these three particular communities; for it has been suggested (of course by those whose research has not been in the area of in-depth analysis of diglossic behaviour) that diglossia is a miniature bilingual situation and that the problems of literacy in diglossias cannot be any more intricate than those in bilingual situations which are already known. Linguistically too, although many descriptions of diglossias are now available, the theoretical relevance of diglossia has not been studied very much. I shall, for this reason, begin by taking a brief excursion into the nature of diglossia dealing especially with the functional dissimilarities between diglossia and bilingualism, as well as between diglossia and dialects, and also with the nature of writing conventions which are potentially capable of fostering diglossic behaviour. In this introduction I shall also examine the beliefs that sustain diglossia and endeavour to relate these beliefs to the notions that are held about literacy.

The much quoted definition of diglossia that Charles A. Ferguson provided in his classic paper (Ferguson 1959) reads as follows:

> Diglossia is a relatively stable language situation in which, in addition to the primary dialects of the language which may include a standard or regional standards, there is a very divergent, highly codified (often grammatically more complex) superposed variety, the vehicle of a large and respected body of written literature, either of an earlier period or of another speech community, which is learned largely by formal education and is used for most written and formal spoken purposes but is not used by any sector of the community for ordinary conversation. (236)

Ferguson refers to this superposed variety as the high variety or H, and to the 'primary dialects' as the low variety or L. For the sake of convenience I shall use the same labels in this paper to refer to the appropriate varieties. Excepting in certain matters of detail, Ferguson's definition fits the diglossic communities I have chosen to investigate.

A comparison with the functioning of bilingualism and dialectal diversity, as well as with register or style distinctions obtaining in almost all languages, would reveal that, in its functional status, diglossia presents a phenomenon which has characteristics unique to itself.

There are, undoubtedly, some similarities between the varieties in a diglossia and the two (or more) languages complexes obtaining in a bilingual (or multilingual) setting. The differences between diglossic situations and the bi- or multi-lingual situations, however, are significant for the student of linguistic functions. A bilingual individual, for example, has a fair degree of freedom of choice between language 1 and language 2. It goes without saying that such freedom depends on the nature of the linguistic repertoire of the other participants in the speech behaviour episode, but the choice between language 1 and language 2 is not necessarily socially predetermined. There is no social restriction, for instance, against the use of either language by a bilingual individual when he talks to his family. In diglossia, on the other hand, the functions of the high and low varieties are socially determined, so that the use of the high variety in normal family conversation is disallowed (i.e. 'it is not the done thing'). Likewise, the use of the low variety in circumstances for which the high variety alone is socially prescribed is treated scornfully. Fishman (1967), therefore rightly concludes that

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> bilingualism is essentially a characterization of individual linguistic behaviour whereas diglossia is a characterization of linguistic organization at the socio-cultural level. (34)

Rather than being a subsidiary of bilingualism, diglossia can co-exist with it, so that, as in the case of the educated Sinhalese-Tamil bilingual, the individual is required to make appropriate uses of the high and low varieties of each language as the social requirements demand. Fishman (1967) has demonstrated the feasibility of a coexistence of diglossia and bilingualism: the title of his paper ('Bilingualism with and without diglossia; diglossia with and without bilingualism') does in itself suggest this feasibility.

A particularly pertinent distinction between bilingualism at large and diglossia has been made in Stewart (1962). This is of special relevance to the present paper. Stewart observes,

> Situations involving bilingualism can be expected to be fairly unstable and to eventually result in the dominance of one of the languages over the other. In contrast, a diglossia situation is one in which the juxtaposed linguistic systems are sufficiently alike in some ways to encourage their structural fusion at certain points. This, in turn, allows for enough mutual identification of the two systems on the part of their users that they may function as situational variants of each other. Such a functional complementation of two linguistic systems is characterised by more stability than is usual in other kinds of bilingualism, so that diglossia situations may endure for considerable stretches of time without any serious encroachment of one of the languages upon the domains of the other. (149)

The normal dialectal diversity obtaining in linguistic communities is of a different order from the high and low distinction in diglossia. Dialect differences are recognised on social and geographical parameters, so that certain dialects are peculiar to certain castes or classes and certain dialects to particular regions. In the case of diglossia, however, the use of the high variety is not restricted to any one caste or class or to any one region; every person may learn and use it for the purposes for which it has been prescribed by the society; the education system, in fact, ensures that the high variety is taught to everyone that goes through it. To put it another way,

> In situations involving different geographical or social dialects, each linguistic subsystem, or dialect, is in most cases used by its speakers to the exclusion of other dialects of the same type. That is to say, speakers of different geographical or social dialects do not normally have a command of each other's linguistic systems. Dialect differences, far from being part of the productive linguistic repertoire of the members of the wider speech community, are historically imposed upon individuals by their geographical provenance or group membership. (Stewart 1962: 150)

as Stewart has shown on the same page (f.n. 4),

> it is possible for originally different geographical or social dialects to come to be used coterminously in a diglossia relationship. But when this happens, the speech forms cease to be geographical or social dialects as such, and become instead the potentially common property of all members of the speech community.

The phenomenon that is closest to diglossic behaviour is the differentiation of styles or registers in linguistic communities (more particularly in complex linguistic communities (Gumperz 1962)). We have shown that the use of language 1 or language 2 is not necessarily socially predetermined for the bilingual individual. He may choose one or the other, or switch from one to the other, depending upon the participants' command in the two languages in question. Every individual, however, keeps the different styles apart most of the time, under normal circumstances; he does not, for example, use in family conversation a style of speech appropriate for public speaking. This mutual exclusiveness in the functions of different styles is closely parallel to the similar distinction obtaining between the high and low varieties in diglossia. There are, however, at least two important differences between style diversity *per se* and diglossic differentiation. Firstly, style diversity is a characteristic of any dialect irrespective of whether the linguistic community is diglossic or not. Where the community is diglossic the high variety is shared by all irrespective of their dialect differences, and functions, in this sense, as a pervasive 'style' distinguishing itself from other styles. Secondly, and as Ferguson has himself shown, the high variety in diglossia is grammatically more complex and reflects an allegiance to antiquity or literary usage. Consequently, the high variety in a diglossia is of a different order and distinguishes itself in its make-up both from the formal styles of speech obtaining in non-diglossic communities as well as from the diverse styles that are available in the low varieties in diglossias themselves. It can be argued, as indeed I shall do later in this paper with special reference to literacy problems, that unlike the normal dialects and styles a person may master for his own use, the high varieties in some diglossias never approach the likeness of a component of the user's linguistic competence. In other words, they continue to retain their superposed character.

I have shown, I hope convincingly, that while it does in some ways resemble bilingualism, dialect diversity and mutually exclusive style functions, diglossia is a phenomenon different from all three of them. Diglossia, thus, emerges as a linguistic institution which is worthy of study in its own rights. Not all languages are diglossic and, therefore, a number of questions remain to be answered. For example: Why are only some languages diglossic? What motivates the emergence of diglossia? What are the implications of diglossia on linguistic theory as well as on our understanding of linguistic behaviour? To what extent is diglossia a stable language situation, and if it ever breaks down in a society, what motivates its dissolution? The beliefs in and ideologies about literacy in diglossic communities (which are by definition used to literacy) must be coloured by the issues that will emerge as answers to these questions. Leaving detailed answers to the above questions for another occasion, I shall, in the present paper, examine the views on literacy held in the chosen diglossic situations and the extent to which these views and expectations are compatible with the actual acquisition and maintenance of literacy.

Ferguson's definition of diglossia presupposes a literate society (although all members of the society need not be literate). The converse, however, is not true, that is, not all literate societies are necessarily diglossic. It is, therefore, expedient at this point to examine the relationships that exist between written and spoken representations of languages and to further examine which of those relationships are capable of causing diglossic situations. (See also De Silva, 1967.)

Where a language with no previous history of writing is analysed and reduced to writing for the first time by a linguist or some other person, and where the resultant phonemic (or any other) script is used to record faithfully what is spoken by the people in question, a one-to-one relationship naturally emerges between the spoken language and its written representation. Such a correspondence is an ideal one to have, but it is often inexpedient and inefficient for practical purposes and is, therefore, generally short-lived. The inexpediency arises out of two factors. For social, political and cultural reasons, people regard diverse forms of linguistic behaviour as components of the same language; such diversities are then referred to as dialects and registers. A written representation which fits one dialect in a one-to-one relationship would not necessarily fit another dialect in the same way. This is especially so if the writing system is alphabetic. In order to endow the entire language with one written form, therefore, exercises towards standardisation are undertaken. This results in the drifting away from the one-to-one relationship to a more distant relationship between writing systems and speech behaviour. This distance might be reflected not only in the symbolic representation of sounds but also in the grammar and the lexis. Secondly, people, as a rule, change their spoken linguistic behaviour more rapidly and more frequently than their written language. The reason for this is obvious. Because of the availability of a more stable model to which reference can be made for authority, the written usages are maintained more conservatively. It is true that, when too wide a gap is caused by the changes in the spoken language and the conservatism of the written, the written form is modified in the direction of the spoken: this accounts for the differences between, say, written Old Tamil and written Modern Tamil or written Old English and written Modern English; however, such innovations are exercised on the written language with much care and deliberation in order not to alter the form of the written representation any more than is absolutely necessary for maintaining a certain degree of comprehensibility. Because of the tendencies towards standardisation and conservatism a gap begins to appear between the spoken languages and their written representations almost from the time of the first codification.

The nature and intensity of the resultant divergence between the written and spoken varieties of language are not always the same. Broadly speaking, it is possible to distinguish between four types of divergence.

First, there are the writing systems like Chinese. Here the writing represents language not alphabetically or syllabically – i.e. not as linear successions of sounds or syllables, but ideographically (or logographically or morphographically or lexigraphically) – i.e. using one symbol for one idea (or one word or one morpheme or one lexeme). Being in some sense stylised pictographic representations of concepts, the symbols used in such writing systems have an air of timelessness about them. Spoken languages change and diversify; and consequently different persons (in different areas and so forth) may acquire different linguistic expressions for the same concept; but the ideograms being symbolic representations of concepts, diversification of speech will not necessarily promulgate alterations in the writing system. Different persons may read ideograms each in his own pronunciation and each imposing upon them his own grammar. The semantic values of the ideograms are equally shared by all irrespective of their dialectal differences which are reflected in their speech habits. In these instances the acquisition of literacy is a cumbersome process: it is said that a speaker of Chinese has to master as many as three thousand symbols to become literate; but the number of symbols is kept in humanly manageable proportions by representing the world view through a complex organization of concept-symbols devised stylistically to portray a subtle system of categorization. From the point of view of the relationship between speech and writing this kind of writing appears to be an ideal one, for it can always be said that the writing system is, in a sense, a true representation of each person's verbal behaviour. Here, the written form does not exercise a direct influence on the spoken language; nor are major changes promulgated in the writing system by the natural changes in spoken verbal behaviour. This is a case where the writing system does not motivate the creation of a diglossic situation.

In contrast to these ideographic or logographic writing systems there are the syllabic and alphabetic writing systems. Syllabic and alphabetic systems have specific implications of utterance. An Old Tamil text, for instance, cannot be read as if it were modern; a passage of Old English cannot be read as if it were Modern English. In such cases, older texts cannot be read or understood by people who have not had a particular training in the respective older languages. In some situations like this, where the disparity between the old and modern forms of language is clearly and unmistakably represented in writing, there is a general belief that the older written language is better and purer. The prestige thus accorded to the older form has religious and cultural implications. Arabic is an instance of this. The older language, or Classical Arabic, has been associated with the codification of the teachings of Islam and is, therefore, regarded with respect and reverence by all Arabic speakers as the pure representation of their language. Different regional varieties of Arabic are not mutually intelligible, but the standard literary language is shared equally by people of all regions irrespective of the mutual unintelligibility of their vernacular speech habits. This is a classic case of diglossia: day to day conversations are impracticable in the prestigious variety and are therefore conducted in the vernaculars; all prestigious activities are carried out in the high or prestigious variety which is, in the minds of the native speakers of all varieties of Arabic, purer, better and more beautiful (Ferguson 1959). This high or sacred form of language is taught in schools in order to train the pupils to write correctly and speak suitably on formal occasions. Tamil is another instance of this kind. Like in Arabic, the high or formal variety and low or vernacular variety in Tamil have mutually exclusive uses; high Tamil has been preserved for cultural reasons.

Then there are situations like the English one. Here the written language is not a prestigious model preserved from the past for any religious or such other reasons. In English writing there are archaic characteristics in so far as the spelling system is reminiscent of an older phase of the language. There are also pedantic lexical items which are used rarely, if at all, in speech. However, the grammar and vocabulary as well as the phonology that the spelling represents can be used in day to day affairs if the speaker so wished. There is, thus, at least for a reasonable segment of the population, no clear separation between the functions of the two varieties. Except where it becomes necessary to use dialectal features for some effect – for instance, for dialogues in novels – the language represented in writing is the product of some standardisation. It is well nigh uniform and is universally acclaimed as the standard. In situations such as this, it is possible to discern similarity between a nationally recognised standard speech and the written form (i.e. the grammar etc. it represents). It is not possible to state a general rule for whether the standard speech conditions the writing or vice versa, or even whether the relationship between them is one of inter-dependence rather than one of cause and effect. This is an aspect which must be examined for each language by carefully analysing the various vicissitudes of its history. In English, there is a striking similarity between Standard English or the educated speech of the southeast and the language that is generally written. Because the standard speech may be used in all situations, there are no mutually exclusive settings for the prestigious and local varieties. For this reason, English and other languages with similar characteristics do not normally 'qualify' for diglossia as defined by Ferguson.

We now come to the last type where the divergence between the vernacular and literary varieties is of a different order. We have observed that in Arabic and Tamil the high variety is used on formal occasions as well as for writing. In the type we are presently discussing, however, the high variety is never used for speaking even on the most formal occasions: it is used only for writing. Thus, this type is characterised by the availability of distinctly different spoken and written usages. Two examples of this are Sinhalese and Telugu. I shall have occasion to talk about certain new innovations in Telugu usage later on, but in Sinhalese, the high or written variety is not used for speech at any time, and there are many features in the spoken usages that would not be permitted in the orthodox written language. Sinhalese (like Telugu before the recent events which I shall refer to later on) is a clear case of diglossia, for it shows mutually exclusive domains of use for the two varieties; it does, however, differ slightly from the instance given in Ferguson's definition in that many normative literary rules are not allowed even in formal speech. The high variety here has, in this sense, a more restricted function, and consequently the concept of prestige is also different here from that in Arabic and Tamil situations.

On the basis of the foregoing discussion it is now possible to say that any linguistic situation which is collectively characterized by the following three principles might be viewed as an instance of diglossia:

(a) There is a superposed variety; the characteristics of this superposed variety have been specified by local grammarians and therefore the divergences between the extreme form of this superposed variety and the local or natural speech habits are statable fairly clearly.

(b) The two varieties function in mutually exclusive settings, graded in terms of prestige; these settings are clearly definable for the most part.

(c) Both varieties are socio-culturally recognised as functionally distinct, and may be contained in the linguistic behaviour of the same individual in the following manner: a person who is a native to such a community and has a mastery of the prescribed use of the high variety also knows the correct social use of the low variety; although the converse is not true, the education systems in such communities aim at teaching the high variety to all their members.

II

I hope I have now succeeded in isolating diglossia as an issue that is of interest to the educationist. Before entering into a discussion of specific problems of literacy enmeshed in diglossic behaviour I must justify the choice of the three diglossias of Kannada, Sinhalese and Tamil for my literacy survey. I have shown above that there are two kinds of linguistic situations which are diglossic. Firstly, there are those situations where the written usage and the formal spoken usage are almost identical (at least in grammar) while they both differ from the colloquial usages. Secondly, there are those situations where the grammar of the written usage is different from that of all forms of speech including formal speech. Earlier on I have cited Arabic and Tamil as examples of the former type and Sinhalese and (formerly) Telugu as examples of the latter. Tamil and Sinhalese, in this sense, represent the two possible types of diglossia. Kannada, strictly speaking, belongs with Tamil. However, the Kannada attitude towards the maintenance of the linguistic duality is much less rigid than the Tamil attitude and therefore the Kannada community tolerates a fair amount of colloquial lexis, etc. in the literature. Still, however, the normative literary language which most writers adhere to is clearly distinct from the spoken language. (Since I began my survey, the question has arisen in my mind whether Kannada is actually diglossic; for the present, however, I assume it to be so on the strength of published work (e.g. Nayak, 1967)).

The three communities I have chosen do, in this way, represent diglossic behaviour fully. Adjacent geographical areas were chosen primarily for convenience, and Sinhalese also happens to be my own first language; but this choice has proved to be a productive one in so far as any difference in the attitudes towards literacy and some difficulties in the acquisition of literacy can now be traced directly to the nature of diglossic behaviour and attitudes to diglossia; for, we are in the same cultural area and are therefore able to reduce to a minimum the various cultural variables, which, if the situations were chosen from different parts of the world, might have been too numerous to control.

In all these three communities, and indeed in the whole of South Asia, book learning is rated very highly. Even five and six year old children do a fair amount of homework in reading and arithmetic each day and the parents are forced by the system to help the children with their school work every day. Some children know the first primer by heart before going to school although they are not necessarily capable of identifying individual words or pronouncing them in isolation. The teacher often interprets this as 'knowing the text'; the repercussions of this on the child's learning are obvious. The entire phenomenon is, of course, circular. The parents expect the children to be taught book knowledge at school and the teachers set the class work in order to achieve this parental objective. The children are rarely encouraged to discover, make and enquire; this is especially so in rural schools, and memorising forms an integral part of learning even at the University level. A concomitant factor of this slavishness and allegiance to the written word from the first day at school is that at school every school child is required to read everything that is written in his reading exercises. He is required to pronounce every single letter including those that are superfluous from the standpoint of the phonemic structure of his language but are there because of its diglossic character. The grammar, i.e. inflections and rules of concord, etc. being different in the written language, the child is neither able nor encouraged to read the sentences with an intonation that would be appropriate for their spoken counterparts that are familiar to him.

Many parents make their children memorise whole reading passages which at school they rattle off parrot-fashion and also extremely fast. The written language being distinct from his own spoken usage, for which he naturally has a good ear, the teacher is often unable to identify the pronunciation errors in these fast readings; my experience has shown that in a number of instances where the teacher has confessed to having heard the distinct but related pronunciations prescribed for different letters the pupil has never made such a distinction in his pronunciation: I refer particularly to the various sibilants, the nasal consonants and, in Tamil, the r-type sounds. They are, probably, symptomatic of all diglossic communities.

I have given this preamble in order to focus on the important place reading has in the Indian child's early learning. The only language that the child is made to read and write is the literary variety. (Some sentences in the kindergarten readers may contain a few sentences which resemble the colloquial variety, but they are only an extremely small proportion.) During their thirteen or fourteen years at school before going to university and then for three or four years at the university all pupils are exposed to a great deal of high language. They read it and, when they write in their mother tongue, they write it. The irony, however, is that, in spite of this extensive training, it has been found that these people are not always able to perform in full accordance with the norms prescribed for the literary usage. In Sinhalese this has been noticed very frequently, and purists have criticised the universities for not giving their undergraduates sufficient training in normative usage. When I was a lecturer at the University of Ceylon (now Sri Lanka) the Head of the Department of Sinhalese required us to take this as a serious criticism. As I have shown (in De Silva, 1974a), there are also some famous Sinhalese writers whose command of the literary norms occasionally falters. As I have said before, the Kannada situation is a slightly relaxed one and one could, in such a context, legitimately expect a writer to represent the colloquial grammar and phonology in his writing. In Tamil, however, the cleavage is very rigidly upheld and it is generally believed that secondary school children and University students do not violate the normative literary rules. Despite this belief, experiments have shown that even Tamil language graduates violate specified norms and in fact Shanmugam Pillai (1965) shows tendencies toward a merger between the two varieties in certain circumstances.

What all this means is that the maintenance of the linguistic duality involved in these instances is an extra burden on the learner. Notwithstanding this, many native speakers of these languages want to restrict the term 'literate' only to refer to persons who are able to read and write correctly. By correctness they mean the ability to observe the normative literary rules with regard to spelling and grammar. Opinions, however, vary in the three communities in a significant way: this variation seems to be a result of the differences in the definition of prestige in the three communities (De Silva, 1974b) and has an influence on the degree of 'correctness' that people are able to observe in their reading and writing.

In a survey conducted to study the social expectations of literacy (and thereby the social definition) I have obtained the following results. The persons chosen for this survey had all completed their secondary school education and ranged from the BA first year (in India, the so-called pre-university first year) students to professionals holding doctoral degrees, including some PhD's in the language in question. They belonged to different occupational categories such as clerks, teachers, lecturers, businessmen, civil servants and university students. Between sixty and one hundred were questioned in each community. Illiterate persons and school children were not included in the survey: among other things the illiterates are not able to pass judgements on matters like literacy and would generally be happy to be guided by established opinion; school children would not always be able to give dispassionate answers because they live in the midst of prejudices for or against matters pertaining to their school curriculum. The percentages of results with regard to correctness were as follows:

		Tamil	*Kannada*	*Sinhalese*
1	'Literacy' is the ability to read and write correctly	100	50	30
2	'Correctness' means the correct rules of spelling and grammar	99	45	15
3	'Literacy' is the mere ability to read and write	0	50	50
4	Unable to decide between 1 and 3	0	0	20

As the above figures show, 100% of the people questioned in Tamilnadu wanted to define literacy as the ability to read and write *correctly*: correctness was defined by 99% as correct adherence to the rules of spelling and grammar as specified for the high variety. (The one per cent that differed was concerned with correct spelling only). Ideas were less settled in the Kannada community. In Karnataka, 50% wanted to define literacy as the ability to read and write correctly, defining correctness as the correct adherence to the normative literary rules. An equal proportion was, however, happy to settle for the mere ability to read and write the letters of the alphabet as the definition of literacy. Among those who defined literacy as ability to read and write correctly, the majority (45% of all those who were questioned) wanted the literates to observe correct rules of spelling as well as grammar while 5% was happy to restrict the meaning of correctness to spelling only. This divergence of opinion corresponds to the more relaxed attitude to diglossia among the Kannada speakers. In spite of this attitude to correctness, the overwhelming majority wants to retain the teaching of the high variety in schools. Contrasting with both Tamil and Kannada, the Sinhalese response was divided significantly in favour of the mere ability to read and write rather than the ability to read and write *correctly*: while only 30% wanted *correct* reading and writing ability, 50% wanted no more than the ability to read and write as the attribute of a literate individual. Even among the conservative 30% there was no unanimity on the definition of correctness. One half of them implied by correctness 'correct Sinhalese usage' (not specifying it as literary or colloquial) which is not adulterated by foreign language influence. They were particularly concerned with the influence of the English idiom on Sinhalese usage through the Sinhalese writings (and the Sinhalese speech) of the English-educated persons. All in all then, only 15% wanted the literates in the community to be proficient in the normative literary usage. It is significant that 20% felt that, in the climate of present day polemics on the subject, a decisive answer was not possible.

The reader might find this vast difference between the Tamil and Sinhalese attitudes surprising, considering that high Sinhalese is a specifically written variety, which has, therefore, to be learned with particular care for that purpose only. In the case of Tamil, the high variety is spoken on formal occasions and, while the learning of it is reinforced by this oral-aural use, the divergence between the two (see Shanmugam Pillai, 1965; 1975) might have forced people to give their answers in favour of communicability rather than the preservation of the duality. To a person who is aware of the different ways in which linguistic prestige is defined in these communities, however, these results would not come as a shock.

In Tamil, the ability to use the high variety is associated with social superiority and intimacy with the Tamil heritage. Formerly, the high variety of Tamil was almost identical with the formal, educated speech which showed much Sanskrit influence. The Brahmin speech has also been defined as highly Sanskritised. Since the ascendance of the Dravida Munnetra Kasagam (DMK, the ruling party in Tamilnadu) the Brahmins have been forced out of their prestigious place in the society and, along with this, the high language has been stripped of some of its Sanskritic lexis; however, this has not made the language any closer to the colloquial speech, for more archaic features have been introduced into the language by the DMK philosophy in its quest for pure Tamil culture and language. The diglossic character has, therefore, not been affected by the State's political changes, and the high variety is still looked up to with the same respect and awe. (I have been told by one or two persons that, in their own experience, even the uneducated people would not take them seriously when they attempted to address them in public using the colloquial language known to the audience.)

The Sinhalese practice is different from this. Not being a spoken language, literary Sinhalese has no class or caste or any other similar overtones. Although historically speaking, literary Sinhalese is a resurrected variety of language that belonged to the fourteenth century (De Silva, 1967), the polemics on the 'purity' of Sinhalese have ensured that the literary variety is not widely recognised as the symbol of the Sinhalese heritage. In the circumstances, the ability to use literary Sinhalese correctly only reflects the person's erudition in the Sinhalese language. Among the Sinhalese educated élite there are at least three points of view on the character of literary Sinhalese. There are the purists who clamour for the use of 'pure Sinhalese' phonology and lexis in the framework of literary grammar (for the implications of the term 'pure Sinhalese' see De Silva, 1967); while the purists want the Sanskritic and other foreign elements out, there are others who have no aversion to Sanskritic lexis and phonological representation, and would in fact encourage them, but within the accepted normative literary grammar; there is, in addition, a third group that regards the special literary features as irrelevant and cumbersome and, therefore, campaigns for the abolition of the present linguistic duality. Unlike in the case of Tamil, the ability to use the literary variety correctly is not associated with an intimate knowledge of, or a passionate belonging to, the glorious past culture of the people. The indecision reflected in the answers given by 20% is a direct result of this lack of unanimity among the Sinhalese élite on this matter.

I have said earlier on that a situation akin to the Sinhalese one existed in Telugu a little while ago. In Telugu, the opponents of the classical or literary grammar have won their battle; at the recommendation of a Telugu language committee the use of the classical language for teaching and examination has been abolished in the universities and the secondary schools. The Telugu Language Committee Report (1973) discusses the history of Telugu diglossia and the circumstances that culminated in the Committee's recommendations. Like in Telugu, the only prestige that literary Sinhalese enjoys is that it merely symbolises a particular type of learning, namely the learning of the classical usage. Before I leave the Telugu Language Committee Report, I must hasten to add that the main reasons that seem to have influenced its recommendations are the absence of any substantial social prestige associated with the literary language and the difficulties in the teaching and the learning of an extra grammatical complex for a restricted purpose. In the Sinhalese community there is, as I have mentioned before, a campaign against literary grammar, motivated by the same reasons. Although this campaign has not succeeded in abolishing the existing linguistic duality, the statements that have been made in answer to my questionnaire reflect somewhat the present-day thinking on the subject.

My questionnaires were in the respective languages. Among other things I was interested in finding out to what extent the people's definition of literacy was compatible with their own performance in the literary variety (e.g. did those people who expected literates to know the 'correct' usage themselves perform 'correctly'?). With this in view, I designed some questions to elicit long answers (of the type 'why do you think so?', 'explain why', 'what is your opinion?', etc.). The answers I received to such questions contained two to five sentences each and the total number of sentences formed a fair quantity on which the subjects' capabilities in the language could be assessed. What these sentences revealed was that people's expectations of literacy and their educational qualifications were not clear predictors of their own proficiency in the literary language. A person may declare that literacy is the ability to read and write correctly according to specified norms; he may say, with some pride, that he experienced no difficulty in mastering the literary grammar at school in a short span of, say, two years; he may possess a BA degree in the respective language; he may be one who has little patience with those who violate the normative rules of literary usage: yet he can make an average of one grammatical mistake for every two sentences and a spelling mistake for every three sentences. The following is a summary of such errors (the mistakes I have counted are those identified by groups of teachers who served as assessors during my survey).

Tamil:

100% wanted the literates to know the correct usage
Total number of sentences written in answers: 170
Average of mistakes – grammar: 1 for every 4 sentences
– spelling: 1 for every 3 sentences

Kannada:

50% wanted the literates to know the correct usage
Total number of sentences written in answers: 121
Average of mistakes – grammar: 1 for every 2 sentences
– spelling: 1 for every 3 sentences

(There were eight instances which appeared to be spelling mistakes but might also have been inadvertent slips of pen due to the similarity in shape of some letters of the alphabet.)

50% did not want correctness to be of the definition
Total number of sentences written in answers: 108
Average of mistakes – grammar: 1 for every 2 sentences
– spelling: 1 per sentence

Sinhalese:

30% wanted the literates to know the correct usage
Total number of sentences written in answers: 88
Average of mistakes – grammar: 1 per sentence
– spelling: 1 per sentence

70% did not want correctness to be part of the definition
Total number of sentences written in answers: 102
Average of mistakes – grammar: 3 for every 2 sentences
– spelling: 1 per sentence

I shall not undertake a discussion of the theoretical implications of these errors in this paper. What is significant in these figures is that even among those who profess to know the correct usage and to follow it there is a fair number in whose writing various types of mistakes occur and certain types of mistakes recur. It is necessary to enquire into the reasons for this. The primary school teachers in these languages are not unanimous on the time a child usually takes to master the literary grammar and spelling, but they all agree that, by the time the child is ready to leave the primary school (i.e. age 11), he will have mastered the rules of grammar and spelling, leaving only the lexicon to be acquired gradually as he goes along. The above figures based on the performance of adults contradict this belief. In the primary school there are five standards or grades. Some teachers believe that the child is capable of manipulating the literary variety in the third standard, some the fourth standard and some the fifth. These statements are very much tied to whether the teaching of the language in the primary school is in the hands of one teacher or many teachers. If the responsibility is in the hands of one teacher, he or she usually plays safe by raising the time to the fifth standard. Where the responsibility is shared by many, the customary thing is to pass on the responsibility: statements like 'it will be done next year', 'it should have been done last year; it is too late now', etc. have often been made. I do not think that these attitudes necessarily reflect the teachers' incompetence or indecision; the teaching of the high variety has been done for decades and the textbooks and the teaching methods have evolved alongside this experience. The problem, as I shall attempt to show in my analysis elsewhere, is rather due to the relationship of the literary variety to the child's spoken usage. I do not wish in any way to put the entire blame for all problems of literacy on the diglossic character of these languages, but I am convinced that diglossia makes the acquisition of literacy more difficult than it ought to be and causes indecisions and diffidence in the use of language which inhibit the child's free expression and creativity.

I have attempted to assess the primary school children's proficiency in the literary usage as well as the rate of increase in their proficiency by giving them five tasks, namely, reading of known texts, taking dictation of known texts, reading of unseen texts, taking dictation of unseen texts and writing of free compositions. These tests showed not only that the children were not anywhere near full proficiency in the literary language by the time they were 11 or 12, but also that their rate of progress was slow in comparison to their rate of progress (that was more easily accessible), say, in mathematics. As an illustration of the errors the fourth and fifth standard children made in these tests, I have taken, at random, ten one-page free compositions written by them in each language and tabulated the errors as follows:

Tamil:

79 errors

Wrong spelling	40
Wrong inflection	15
Wrong word	6
Wrong grammar or colloquial grammar	6
Colloquial words	12

Kannada:

153 errors

Wrong spelling	85
Wrong inflection	15
Wrong word	6
Wrong grammar or colloquial grammar	23
Colloquial words	24

Sinhalese:

197 errors

Wrong spelling	92
Wrong inflection or wrong postposition	26
Wrong word	2
Wrong grammar or colloquial grammar	49
Colloquial words	28

Before I leave the subject of free composition, I must define what free composition means in these school situations. Free composition here does not mean writings of children's own choice and imagination which would give vent to their innovative nature. In my experience, the teacher first sets one or more essay topics (e.g. the coconut palm, the happiest day in my life); then he usually writes on the blackboard some useful (literary) expressions that may be used and also some notes on concord, etc. Some teachers give a skeleton of the essay on the blackboard. The entire operation appears not so much an exercise in creativity as an exercise in literary usage. The mistakes I have counted as above were made in spite of this training.

If, after thirty or forty hours a week of exposure to a variety of language for over four years, the average performance of a child is no better than I have found and described; if the social expectations of literacy are not altogether compatible with the performance of the literacy learner, or indeed of the proponents of the high literacy ideals; if a social attitude enmeshed in such incompatibility creates a state of tension (De Silva, 1974a, 1974b; Shanmugam Pillai, 1972) that is not in the best interests of creativity; then the system that gives rise to these circumstances might not be the ideal one to perpetuate for the accomplishment of literacy as 'an ability to express oneself articulately for a variety of purposes, socially, intellectually and vocationally both in speech and writing; to command a capacity to read for information, enjoyment and enrichment and to respond sensitively and intelligently to what is said as well as to what is written' (Goddard, 1971:21). The teaching methods in these communities might need revision, but it would not be realistic to apportion full blame on the teaching methods or, indeed, the syllabuses. It is my contention that the circumstances and conditions of usage are not favourable enough for most persons to internalise the literary language (in any sense of the term 'internalize') to the point of having a full command of it. Where a form of language has a restricted function in the society, leaving little opportunity for the learner to use it fully, frequently and in a wide variety of circumstances, that language will always be comparatively alien to him; his personal spoken language which he constantly uses in every normal circumstance will exercise its powers more to block the individual's familiarisation with this alien form than to facilitate it. Colloquialisms that have infiltrated the writings of many authors and the hybridisms created by many in their writings (De Silva, 1974a; Shanmugam Pillai, 1965; 1972) are far more numerous than the literary influences on the speech habits of any section of the population; any influence of the literary language on speech is primarily lexical and is the result of extensive reading.

The history of the diglossic situations under survey shows that the high varieties in all three are not natural to the communities but have been imposed upon their normal linguistic habits by revivalists who have, in the name of cultural renaissance and standardisation, resurrected linguistic forms which are several centuries older and whose overall structure is outside the linguistic competence that the individuals display in their speech behaviour as grown up members of the community (De Silva 1967). Bright (1970) proposes that the literary form should be stated as the underlying structure of the language from which the colloquial form may be conveniently derived by deletion rules. It would certainly be neat and convenient to do this on paper; however, if a form of language (in this case the literary language) is the basis or the 'underlying structure' of all speech acts and is therefore within the competence of the speakers, why is it that young individuals (who in similar circumstances can master aspects of a second language with two or three years intensive learning) find it difficult to operate it in full accordance with the norms despite their exposure to it for thirty or forty hours a week over a period of four or five years?

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Linguistics and Literacy

Sarah C. Gudschinsky

1. Preliminaries

1.1 *The Scope of the Paper*

'Linguistics and Literacy' is a broad topic and my first problem is to limit the discussion to a manageable size. First of all, I choose to be programmatic rather than historical, pointing out the need for linguistic research rather than describing ways in which linguistics has been applied to problems of literacy. Most of what might be said about the history of the application of linguistics to problems of teaching reading and writing, with specific examples of such application, has already been detailed elsewhere in this series.* (See, for example, chapters on literacy in the Americans, Asia, and Africa in *Current Trends* Vols. 4, 6, 7; and chapters on linguistics and reading in Vols. 10 and 12. For bibliographies of linguistics and reading in the United States, see Broz and Hays 1966, and Goodman and Goodman 1967.)

Secondly, I choose to be original rather than bibliographical. Throughout the paper there are references to literature which exemplifies or illustrates, but there is no attempt to be exhaustive.

Thirdly, I choose to discuss the teaching of reading, and to ignore writing, although both are necessary to complete literacy.

In general, I have ignored the differences between literacy for adults and for children. Most of the examples throughout the paper are taken from literacy programmes for adults, but some are from bilingual primary education projects for children.

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* *Current Trends in Linguistics*, T. A. Sebeok, ed. The Hague: Mouton, 1963–1973.

Although the choice of language and dialect as a medium for instruction is a linguistic problem that affects literacy, I will omit it from this discussion. I assume, however, what seems to me obvious, that the skills of reading and writing can only be taught in a language that the pupil already speaks. This means, of course, that either instruction must be in his mother tongue, or he must learn functional oral control of the language of instruction before he begins reading lessons (see Davis, 1967; Gudschinsky, 1967b; Hays, 1965; Tucker, 1952; UNESCO, 1953; Wurm, 1966).

Although much has been written about orthography, it has traditionally been far too narrowly conceived, and rather than excluding it, I have decided to use it as the core of the paper around which other observations can be organized. The body of the paper, therefore, consists of eight sections: introductory words on the linguist's role (2.1), and the nature of writing systems (2.2), five hierarchically ordered sections which deal with orthography in its widest sense, and its relationship to linguistic problems in literacy. Specifically, at the level of discourse and paragraph (2.3), sentence and phrase (2.4), word (2.5), syllable and morpheme (2.6) and phoneme (2.7). Then, a final word on lexicon (2.8).

I find that in developing this topic, I am torn between a desire to produce a typology of the linguistic and orthographic problems of the world as they relate to the teaching of reading, and a desire to discuss extensively the educational fallacies that might be cured by linguistic insights. I find that in practice I have done neither well. I can only hope that in this sketchy treatment that alternates between these two points of view, the reader will find some intriguing point that will lead him to further reading – or to carrying out some of the needed research.

1.2 *A Linguistic Model*

In the present state of turmoil and opposing models in linguistic theory, it is not easy to talk about the application of 'linguistics' to the problems of literacy, as though it were a monolithic discipline. Some of the earlier discussions of linguistics and reading used the structural model of Bloomfield and his followers (Bloomfield and Barnhart, 1961; Fries, 1952). More recently there has been considerable interest in psycholinguistics, orthography, and the application of linguistics to reading, on the part of the transformational-generative school. There are also useful insights from the stratificational model and from the scale-and-category model. I have chosen, however, to restrict myself mainly to the framework of tagmemics, the model in which I am most at home. I find particularly useful its emphasis on separate yet interlocking hierarchies of phonology, lexicon, and grammar; the notion of mutually substitutable items in a slot or position; and emphasis on levels of grammar above the sentence. (For discussions of tagmemic theory, see the bibliography in Pike, 1966.)

1.3 *A Model of the Reading Process*

As background for further discussion, it will help to have a model of the reading process in mind. A number of such models have been proposed by various psychologists and psycholinguists (e.g. Venezky and Calfee, 1970; Carroll, 1970; Goodman, 1968, 1970; and Rudell, 1969. For the purposes of this paper I choose to follow Goodman's (1968) model of four stages of reading competence).

Goodman's model of Stage I competency views the VISUAL INPUT of the beginning reader as including Letters, Letter Patterns, and Whole Word Shapes which are *recoded* to the equivalent Phonemes, Phoneme Patterns, and Word Names, which are then mixed with the AURAL INPUT (which the reader brings to the process from his knowledge of the patterns of his language). This is then further *recoded* to ORAL LANGUAGE which is *decoded* for MEANING.

At Stage II, the reader is able to process larger chunks of the GRAPHIC INPUT, but the process is essentially the same.

At Stage III, however, the proficient reader *decodes* the GRAPHIC INPUT in large chunks direct to MEANING, and must *encode* the meaning to produce an ORAL OUTPUT. (This is why many proficient readers do not read aloud well.) Efficient oral reading is Stage IV, in which the reader simultaneously *decodes* the GRAPHIC INPUT for MEANING, and *recodes* it as ORAL OUTPUT.

1.4 *A Definition of Literacy*

Definitions of literacy have varied from the ability to sign one's name, to completion of a certain standard of elementary education. 'Functional literacy' has been defined as the ability to read and write sufficiently well to function in one's community. None of these definitions, however, provides a satisfying goal for literacy work.

Goodman's Stage III is a more adequate characterization of the reading processes of a fully literate person. My own definition adds reference to language, comprehension, and writing: 'That person is literate, who, in a language he speaks, can read and understand everything that he would have understood if it had been spoken to him; and can write, so that it can be read, everything that he can say' (Gudschinsky 1968b: 146). This degree of literacy implies full control of all the reading skills – control of the written signals for every level of all phases of the linguistic structure.

2. Linguistic Problems in Literacy

2.1 *The Linguist's Role*

The linguist's primary contributions to the making of literacy materials, and decisions regarding teaching methods, include analyses of the linguistic – and psycholinguistic – structure of oral and written language, and the specification of the relationships of these structures to each other and to the writing system. It is of vital concern to the literacy worker to know how the writing system is related to oral language. He needs answers to questions like the following:

(1) What units of the language are psycholinguistically real – at what depths of focus or degree of sophistication (Gudschinsky, 1958)? Which units, therefore, can the pupils focus on without special training, and which must they learn to focus on before they can relate them to written counterparts?

(2) What chunks of the written language equate with minimum isolable units of the spoken language? Are those phonological units, grammatical units, or lexical units? If the isolable units in the three hierarchies are not isomorphic, how do they relate to each other?

(3) Given the information in 1 and 2, what are the minimal pronounceable matrices within which the pupils may be taught to recognize letter-phoneme correspondences? What are the minimum meaningful matrices within which they can be taught to recognize specific morphemes and words? (e.g. a minimal matrix for English *and* is a phrase with two words: John ________ Bill. A minimal matrix for English *if* is two clauses: I'll go ________ it rains).

(4) What elements of the writing system represent written styles that have no direct counterpart in naive speech, and so must be taught as new language rather than as mere recognition?

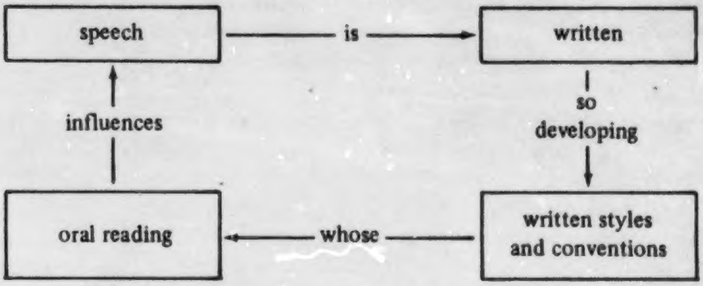
(5) What are the inconsistencies of the orthography? Is there overdifferentiation of phonemes? Underdifferentiation? Other problems?

2.2 *The Nature of Writing Systems*

It is the thesis of this section, and the ones that follow, that to whatever extent writing systems symbolise spoken language, they represent in some measure all the levels of the three hierarchies: the lexical, the phonological, and the grammatical. This representation is usually incomplete, and the mixture of the hierarchies varies from one orthography to another, depending on the exigencies of the particular language, the bias of the orthography maker, or historical and sociological factors.

Orthographies have traditionally been viewed as devices for representing phonemes or morphophonemes by graphemes, with more or less accuracy depending on social pressures. Even linguists who share in devising orthographies have by and large taken this narrow view, so that the representation of higher levels of the phonology, and interlocking levels of the grammar and lexicon, is more by accident than design. Nor have any complete analyses of existing orthographies been made from a wider point of view. Even the recent investigation of English orthography by Venezky (1967), which relates graphemes to morphophonemes rather than to simple phonemes and so includes grammatical representation, fails to consider other aspects of the writing system.

It should be recognised at this point that an orthography represents more than the spoken language, even though that may have been the whole of its initial purpose. Inevitably when people write their language, they develop a written style that differs in some respects from their oral styles. (There are unpublished reports of the development of such written styles in the Aguaruna and Amhuesha languages of Peru.) These written styles, however, can be read aloud and some elements of them may find their way into the oral styles of the reader, so that our model of orthography is as follows:



Thus one might hazard a guess that the semicolon, some uses of parentheses, etc. arose in English orthography to meet needs in special written styles. These are matched, however, by certain elements of voice quality and intonation in the oral reading of such written material. The oral conventions in turn may be used in a formal speech, which in a measure mimics written style, but they are relatively rare in informal colloquial speech. (For example, the professor may say in a seminar or committee meeting: 'X is important because: (a) . . ., (b) . . ., and (c) . . .' but he does not converse with his small son in that style.)

2.3 *Discourse and Paragraph*

The largest linguistic levels relevant to the teaching of reading to beginners are discourse and paragraph – the 'stories' or 'connected material' of the beginning textbook – and their internal structure. In literacy materials for ethnic minorities, they tend to be the most neglected levels. In methods that begin with word or syllable, the use of connected material is sometimes delayed until late in the teaching sequence. Little attention is paid to naturalness of discourse genre and style, and even less to teaching the orthographic signals of discourse structure.

There is a need for linguistic and cultural studies of discourse genre. Which are most appropriate for the beginning readers of various ages and backgrounds? Which of the written genres most closely approximate the oral language that the pupil already controls? It is traditional to use narrative for children's primers, and narrative or didactic how-to-do-it texts for adults. Are these the best choices? Would dialogue be closer to the spoken language? Or would well known poetry from the oral literature make a better starting point? There are scattered instances of imaginative choices that have been effective (e.g. an adult literacy text in one of the languages of Mozambique that begins with a song; and others described in section 2.8), but there has been no real study of the general principles involved.

An even greater problem is the production of the connected material for the literacy textbooks. In the writing of such material some restrictions are necessary if the pupil is to learn the elements of reading in a gradual and orderly way. Alternative kinds of restrictions are discussed in section 2.8, but we are concerned here with the effect of such restrictions on readability and style.

For many educators the notion of 'simplicity' in story writing requires restriction of the number of words used, and restriction of the variety of sentence patterns. The result is an unnatural 'primerese' in which, at its worst, the reader can neither find sufficient clues for guessing what the author has said, nor check on the correctness of what he has read. But the reader's ability to match a sampling of the text against his own knowledge of the language, and his ability to anticipate the author are essential to smooth reading (Carroll, 1970; Goodman, 1968, 1970; and Venezky and Calfee, 1970). This means that there is need for new, linguistically defined, criteria for simplicity and readability which take into account the degree to which the text matches the reader's expectations.

In linguistic theory there is a growing emphasis on the analysis of discourse and paragraph structure. See, for example, Fries (1952) on initiating and sequence sentences; Waterhouse (1963) on independent and dependent sentences; Bridgeman (1966) on paragraph structure; Wise (1968) on pronominal reference within discourse; and Longacre (1968) on paragraph and sentence within discourse, and many others. There is a lack of studies relating this level of linguistic analysis to readability, however. To what extent is readability impaired when the use of pronouns, functors, or sequence markers is limited in order to reduce the number of words used in a story? To what extent is it impaired by limitations on the choice of sentence types, or by unusual repetition of nouns or verbs? Are some styles more readable than others? Is readability of style a function of reading experience? Or are easy styles the same for beginners and for fluent readers?

There have been some tests of readability in use for some time. The interested reader will find a bibliography of readability and reading in Dale and Seele, 1966; material on tests of naturalness and style in Grimes, 1963; Gudschinsky, 1967a; Larson, 1967; and Moore, 1964; and a first study of the relationship of sentence structure to readability in Schlesinger, 1968.

It is not usually recognised that the devices that signal the boundaries of discourse and paragraph are part of the orthography. Discourse is usually set off by space, or sometimes by pictures or designs. It may have a title and/or a closure formula also set off by space and by capital letters or special type.

Literacy teachers quite generally ignore the teaching of these devices. Apparently they expect the beginners to absorb an awareness of them incidentally. This does not always happen, however. There are reports of relatively fluent readers in some Amerindian groups who begin or end their reading where a page begins or ends – even in the middle of a hyphenated word – paying no attention to the beginning or ending of discourses.

The various kinds of discourse structure are also signalled in the orthography – and largely ignored in the teaching. Paragraphs are marked by indentation and/or wide vertical spacing at the beginning and end. Confusion for the pupil arises out of the fact that the units marked in this way are not always linguistically equivalent. The paragraphs of narrative or didactic text may be either lexical or grammatical divisions of the discourse, or both. Quotation paragraphs, on the other hand, usually signal change of speaker and cut directly across the lexical and grammatical units – e.g. in the following example, the quotation break occurs in the middle of a grammatical sentence:

> 'He is on his way –'
> 'Home?'

In poetry, wide spacing may signal stanzas which can be lexical or grammatical units, but which may well be primarily phonological units. (Note also the special use of capitals, line length, and diacritics such as apostrophe and accent to mark special phonological phenomena in poetry.)

For effective literacy teaching, the educator should know the linguistic correlates of orthographic signals at discourse and paragraph level. With this knowledge he can plan explicit lessons to help the beginner respond to these signals and make use of them in his comprehension of what he reads.

2.4 *Sentence and Phrase*

Sentence and clause levels are distinguished in tagmemic descriptions of language, but this distinction is somewhat less fruitful in the teaching of reading. It is relevant, however, to note that sentences are structural elements within paragraph and discourse. The notion that the sentence is the largest structural unit in language is responsible for many awkward pseudo-paragraphs in literacy materials.

Sentences are marked orthographically by a wider space than words, by terminal punctuation, and in many languages by capital letters. The sentence as such is usually a grammatical structure but the terminal punctuation may represent grammatical or lexical contrasts, or termination of a phonological structure, or various combinations of these. An analysis of English punctuation is beyond the scope of this paper, but the reader can easily find for himself instances of the use of the period and question mark to distinguish grammatical categories of affirmation and query even when the intonation is the same, and other instances that distinguish both the grammatical categories and contrastive intonation patterns. He can also find instances of exclamation points and italics signalling emphasis or focus which may belong high in the lexical hierarchy. Semicolon and period, both representing the end of grammatical sentences, may signal contrast between final and non-final intonation.

The exact role of punctuation and capital letters is not usually made explicit in the formulation of new orthographies or in the study of traditional ones (but see LeFevre, 1964).

The deeper psycholinguistic problems with regard to how punctuation should be read by a beginner cannot be solved except on the basis of analyses of its linguistic meaning. Should the pupil be led to see the grammatical or lexical correlates of the punctuation in the expectation that correct intonation will follow? Or should he be taught the intonational equivalents in the expectation that this will lead to the understanding of the grammatical and lexical relationships? Answers to these questions will surely vary from language to language, as the precise interlocking of lexical, grammatical, and phonological criteria for punctuation vary.

There is clear evidence, however, that the reading of punctuation must be taught. Fox (1961) reports that in Quiché of Guatemala some rare but natural sentence orders are difficult to read. The readers ignore periods and attach subordinate elements from the beginning of such a sentence to the end of the preceding one – where subordinate elements are more likely to occur. From other sources there are reports of readers who treat each line of print as a sentence – with consequent loss of intelligibility.

Problems of phrases within the sentence are similar to the problem of sentences. Such phrases may be either grammatical or phonological or both. In many languages grammatical and phonological phrases are not coterminous. In Tzeltal of Mexico, for example, the pronominal verb prefix *s-* is attached phonologically to a preceding open syllable rather than to the following verb – even if the open syllable belongs to a subject noun phrase or a locational phrase, and not to the verb phrase at all. In such languages should space and comma be used to represent phonological phrase breaks, or to represent grammatical phrase breaks? And whichever choice is made in the orthography, how should the pupils be taught to read it?

Further problems of phrasing result from various kinds of *sandhi* within phrases. In Aymara of Bolivia, for example, many words have a final contrastive vowel that is lost within a phrase. Writing these vowels everywhere resulted in a tendency toward slow word-by-word reading, and hindered the developing of fluency. Omitting the vowels from words within phrases forced the teaching of reading by phrases.

Fox (1961) also comments on problems of slow versus fast speech forms in the orthography of Quiché – essentially a choice between word and phrase as a spelling unit.

Other kinds of punctuation may be used primarily for the conventions of written style: e.g. colon, semicolon, parentheses, indentation of lists, footnote numbers, numbers of letters in parentheses, etc. What is the relationship of these conventions to oral language? At what point should they come into the teaching sequence, and how? To what extent do they pose a psycholinguistic problem to the naïve reader? To what extent can they, or should they, be introduced into the orthographies of newly written languages?

2.5 *Word*

Words are usually considered to be the most basic units in the teaching of reading (Chall, 1967; Fries, 1962; Gray, 1956). Educators talk of 'word attack skills', 'word analysis', 'word recognition' and sentences are conceived as built from words. Words are also the most prominent elements in the orthography – each separated from the others by word space. There are serious problems of orthography, psycholinguistic reality, and pedagogy at the word level, however.

Not all languages make the same use of the orthographic device of word space. In English the criteria are primarily grammatical with little reference to phonological isolability: e.g. *a* is written as a separate word although it is phonologically bound to the word which follows it, as is the infinitive marker *to* which is phonologically bound to a preceding main verb. In Mixtec and Mazatec of Mexico on the other hand, hyphens are used to group clitics with grammatical words to form phonological words (Gudschinsky, 1958; Hunter and E. V. Pike, 1969; E. V. Pike, 1956). There is need of more research to determine the best use of word space and hyphen in new orthographies, and to determine the psycholinguistic status of the units that are written as words.

Oddly enough, the educators and linguists-turned-educators who consider word to be the basic unit for the teaching of reading seem to have overlooked the fact that orthographic word does not necessarily represent intuitive units in the speech of the naive speakers of the language (but cf. Goodman, 1969). Naive speakers differ in the ease with which they can use content words in isolation, but very few can isolate functors such as *the* or *at* without considerable teaching and sophistication.

In teaching reading I follow Fries (1952) in making a sharp distinction between content words and functors – often including function affixes as well as clitics and particles in the latter group. I advocate that pupils be taught strategies for equating symbol with phoneme (or morphophoneme) in the recognition of content words, but that they be taught to recognize entire functors at sight in context. Thus the functors provide the grammatical framework for the decoding of content words. This implies a literacy textbook in which lessons introducing new letters alternate with lessons introducing new functors, so that every lesson can be practised by reading linguistically natural connected material (Gudschinsky, 1968b, 1969b, 1970).

To produce such material, the literacy worker needs considerable information about the functors: Which are obligatory for the various discourse genre, paragraph types, and sentence and clause types? Which are rare (like *inasmuch* in English) and can be disregarded in the basic literacy lessons? Which are virtually automatic, needing little teaching (like the *-s* suffix on third person singular verbs)? Which are in contrastive sets that must be carefully taught (like English prepositions)? Which approach content words in their isolability (like *up* and *down* which are used by small American children as complete utterances)?

2.6 *Syllable and Morpheme*

Both syllable and morpheme may be important units in the teaching of reading, and both are relevant to at least some orthographies. Some languages – Amharic, for example – are written with syllabaries. Arabic and some of the Indian scripts use allographs to make syllable structure evident (see Butt, 1967 on this phenomena in the Devanagari script used in writing Hindi). There are a few languages, such as Apinayé of Brazil, in which syllable boundary is contrastive, and has to be written in some words to prevent ambiguity (Burgess and Ham 1968). There are also languages like Mazatec of Mexico in which syllable boundary is marked as a by-product of the writing of tone (Gudschinsky, 1959).

The primary usefulness of a syllable in the teaching of reading is as a pronounceable matrix for the recognition of letters or digraphs (Gudschinsky, 1968a). Non-linguists have supposed that the 'reality' of phonemes means that naïve speakers could recognise and manipulate the phonemes of their language in isolation. This is not true, of course, except in situations where there are cultural pressures toward the abstraction of phonemes. In Huautla Mazatec, for example, the men communicate by whistling the tones alone, so they have no difficulty in abstracting tone phonemes. The use of tongue twisters and Pig Latin in word play helps some Americans to focus on initial consonants. In general, however, the naïve speaker of a language tends to react to the phonemes as points in the contrast between lexical items rather than as abstract units and he must be taught to manipulate them. Attempts to pronounce phonemes in complete isolation produce distorted allophones unlike the actual pronunciation of the phoneme in any normal occurrence. The use of a pronounceable matrix – such as a syllable – permits the perception of the phonemes and the letters that represent them as mutually substitutable items in specific positions.

It should be noted, however, that in some languages a single syllable is not pronounceable, rather all isolated forms have a minimum of two syllables, and a couplet replaces syllable as the matrix for letter recognition. Couplets are also useful matrices for the recognition of letters with limited distribution: e.g. Spanish ñ which does not occur utterance initial, or the intervocalic single and double consonants of English which signal the quality of the preceding vowel (Glass, 1969; Gudschinsky, 1969a, 1970; and Shand, 1970).

The morpheme is important to the orthographies of languages in which some morphophonemic writing is needed. Venezky (1967) has described the English writing system in terms of morphophonemics. Gudschinsky (1958) describes the tone orthography of Soyaltepec Mazatec as partly phonemic and partly morphophonemic, giving the psycholinguistic evidence on which the choices were based. There are no broad-based criteria for deciding when to use phonemic writing and when to use morphophonemic, however. There are few studies of the psycholinguistic reality of morphophonemes, and even fewer of their relationship to phonemes (but see Newman, 1968).

The morpheme may be a better teaching matrix than the syllable in the case of functors (see section 2.5), or in the case of morphophonemic writing. The effect of morphophonemic writing is to keep the spelling of all the allomorphs of a particular morpheme uniform, leaving it to the reader to make the phonemic changes required by various contexts. Eunice Pike (private communication) has suggested that phonologically conditioned allomorphs should be written morphophonemically, and that grammatically conditioned allomorphs should be written phonemically. This appears to be a reasonable solution in some cases (e.g. the English plurals *-s* vs. *-en*), but there are too few careful studies of the problem to assess its universality of application.

2.7 *Phoneme*

At phoneme level, we come finally to the elements that are often considered to 'be' the orthography – the letters and letter groups that represent the phonemes or morphophonemes of the language. These include the symbols used to represent lexical tone, nasalization, stress, or other suprasegmental phonemes, as well as the consonants and vowels. It is at this level that orthography is usually discussed (e.g. Berry, 1958; Gudschinsky, 1959; Ohannessian, 1969; Sjoberg, 1966; Smalley, 1964).

In languages written with an alphabet, the letters, diagraphs, etc. represent phonemes more or less consistently. Traditional alphabets, of course, may continue to represent phonemic contrasts long since lost from the spoken language – e.g. the *c* and *s* which represent Mexican Spanish /s/, where Castillian had a contrast between /0/ and /s/. Some new orthographies inherit inconsistencies from the prestige orthography they are modelled after – e.g. the use of *c* before back vowels and *qu* before front vowels to represent /k/ in Amerindian orthographies in Latin American countries where Spanish or Portuguese is the national language.

Many of the most severe problems of orthography making are a matter of phonemic interpretation, and sometimes these problems can be solved with psycholinguistic testing. Among the more dramatic examples of this are the Maxakalí of Brazil and the Brôu of Vietnam. Gudschinsky and the Popoviches (1970) present the evidence that in Maxakalí some sequences that are emically two syllables of the shape [CVCV] are emically single syllables of the shape /CVC/. Johnston (1968) presents evidence for 41 contrastive syllable nuclei in Brôu, along with the evidence for specific parameters of contrast including tense-lax, normal-short, and simple-glided.

The psycholinguistic data can be very complex, however, and the results of testing are not always the same for the bilingual as for the monolingual, nor for the educated person as for the naive illiterate. A Mazatec informant who is bilingual in Spanish may hear the allophones of his back vowel as /o/ and /u/ and be surprised if he discovers that he is not always consistent in making such a contrast. The educated Hindi speaker 'feels' the presence of a schwa vowel in words where the orthography implies it, even though he never actually pronounces a schwa in that position. The new literate in Hindi, however, who is led by the orthography to pronounce a schwa in that position, does not recognise the resulting word because it differs from the way he says it. Note also that a mature reader of English has difficulty in reading such sequences as: 'I went two see him', or 'I want to much' (see also Fries and Pike, 1949).

Literacy programmes can be built on even very inadequate orthographies, provided that the inadequacies are taken into account in the teaching process. Specifically, the person making literacy textbooks, and planning the course of instruction, should know exactly how the spelling differs from the phonemic analysis of the language. This includes overdifferentiation, in which a single phoneme is represented in more than one way; underdifferentiation in which some contrasts are not symbolised; irregularities of various kinds in which certain morphemes have unique spellings; ambiguities in which clusters and digraphs are not distinguishable, or in which syllable boundary is ambiguous, and the like.

The literacy worker also needs to know of the ambiguities which are a part of the language itself. Is there neutralisation of contrast at some points? Are the phonemic elements written with the same letter in different positions psycholinguistically equivalent? (In some Vietnamese languages, for example, what is written as a normal vowel in open syllable equates with the short vowel rather than the normal one in checked syllables, so that the two occurrences of the same symbol cannot be equated as same in the teaching of reading.) Some inadequacies cannot be compensated for, however. If too many crucial contrasts are omitted from the orthography no amount of practice can eliminate the ambiguites (e.g. Longacre, 1970).

2.8 *Lexicon*

One of the most important linguistic aspects of a literacy programme is the choice of vocabulary for the basic textbook and for the follow-up literature. There have been two basic fallacies in the practice of educators. On the one hand, they have 'simplified' material by limiting the vocabulary used, and on the other hand they have chosen the vocabulary from lists of 'the most frequently used words'. Unfortunately, neither of these procedures is justified by the linguistic facts.

The formulae for limiting the vocabulary have included rules for the repetition of every word that is used. This leads to unnatural and boring style. It also prevents the use of vivid colourful words that are needed for specific stories, but cannot easily be repeated. In general, the rationale for such limitation is the notion that the pupil is learning to recognize words as such, and requires a certain number of repetitions for effective learning (see my earlier work, Gudschinsky 1951, for a statement of this point of view).

There are serious problems with this approach, however. There is psychological evidence that mature readers recognize words by internal detail rather than by 'whole word shape' (Carroll 1970). There is also ample pragmatic evidence that readers who depend on whole word recognition as their only strategy do not develop into good readers.

My present point of view is quite different. Functors and content words should be treated differently. The functors should be recognized as wholes on sight, but they are repeated often enough in normal text that artificial repetition is not necessary. The most frequent and familiar content words may also eventually be recognized at sight, but this is not the goal of beginning reading instruction. Rather the pupil should be taught to perfect his strategies for figuring out words that he does not recognize instantly. This means repetition of letters in certain positions in syllables or couplets, rather than repetition of content words as such. And this in turn leaves the way open for the use of a larger vocabulary, and the inclusion of some words that occur only a few times.

But how should the words be chosen? By frequency? But frequency in what? And by what kind of a count? The old method of choosing the most frequent words in running text meant, of course, that many functors were included (since the old counts did not distinguish between functors and content words). But it also often meant an artificial frequency depending on the particular type of text chosen for counting. Surely it is not important that a particular speaker may have used a particular word several times in a single text. Far more important is the percentage of the potential audience that uses that particular word. That is, 'frequency' of a word should not be counted in terms of its repetition in a particular body of text, but in terms of its use by a certain number of people. This kind of vocabulary count, obviously, is much more difficult and there is a need for experiment and research in techniques for making it.

Vocabulary is not a disembodied list of disconnected words. Vocabulary is embedded in a universe of discourse, limited by co-occurrence restrictions, used in a certain social register, by persons in certain sex, age, and occupational roles. Intuitive native speakers of a language may be able to choose appropriate vocabulary for a given audience without elaborate linguistic studies. Where materials are being prepared largely by non-participants in the culture, however (as is often the case in small minority languages in out-of-the-way places), there is serious need for better vocabulary studies.

The limitation of vocabulary in a beginning textbook to words made with certain letters does not necessarily mean dull or wooden content. This was illustrated at a workshop for the production of adult literacy primers at Literacy House, Lucknow, India. All of the primers made at the workshop began with a very few letters, and added others one per lesson. In all of the primers, the introduction of letters alternated with the introduction of functors. The Oriya primer was written by a journalist. His primer contains a continued story of lurid melodrama. He introduces the town beggar, the loan shark, adultery, murder, suicide – and ends with the two main antagonists killing each other. The Telegu primer was written by a poet. Each word was chosen for its poetic quality, and the stories sing like Telegu poetry from the very beginning.

A further illustration comes from a primer production workshop in Vietnam. There the couple working on the Koho primer built into it their deep sense of the culture of the people. A highlander and a lowlander have a discussion. The highlander wonders how the lowlander can stand to eat rice grown in a wet paddy – or to work where the crocodiles eat the children. The lowlander in turn criticizes the sticky rice grown in a dry field, and wonders how the highlander can get along with the man-eating tigers in the hills. A reader from either dialect can identify with the speaker from his own area – and feel at home in a primer made with severe limitations on the use of letters.

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The Making of Alphabets Revisited

Jack Berry

The present paper is intended to bring my earlier *The Making of Alphabets** up to date by reviewing the more important literature published since 1958 on the design of writing systems and on other related and pertinent topics. There is not all that much new literature directed specifically to writing systems. By far the most comprehensive study of orthography design published in the last fifteen years is Smalley's and we may as well begin with that.

Orthography Studies (Smalley *et al.*, 1964) is a collection of fifteen previously published articles, some of which deal with the principles underlying the preparation and structure of devised scripts and the rest describe in great detail the applications of these principles with the different solutions worked out in different scripts. Smalley as well as editing the volume, has contributed two further articles – the first by way of general introduction to the volume and the other to resume discussion of the many problems connected with devising non-roman scripts. Somewhere in the volume he proposes five criteria of an adequate new writing system. These are (in the order of importance assigned to them by Smalley): 1) maximum motivation for the learner; 2) maximum representation of speech; 3) maximum ease of learning; 4) maximum transfer; 5) maximum ease of reproduction. Smalley's list is reasonably comprehensive; it covers most aspects – political, socio-cultural, psychological and pedagogical – of orthography design. No one would wish to quarrel with it on that score. And the individual criteria taken separately are unlikely to meet serious objection given that (2) is suitably defined. What is debatable, of course, is Smalley's weighting of the criteria. Here there is wide scope for disagreement. Recently, for example, Venezky (1970) has suggested that 'while socio-cultural factors [i.e. Smalley's (1)] must be considered at some point in the design of practical writing systems, these are subordinate to the linguistic, psychological and

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pedagogical variables [i.e. Smalley's (2) and (3)] which determine the optimal system or range of systems for the language and speakers involved.' In devising orthographies, of course, as Smalley himself is well aware, the problem is not to decide what features are good for our purposes since this is after all a fairly easy business. The difficulty is that features which seem to be good for most purposes are often mutually conflicting and in the actual situations in which the orthographies are to be used, the relative weights assigned to the various features will have to be different.

We shall now take each of Smalley's criteria in turn (since this seems as good a way into the literature as any) and examine its implications for orthography design against the background of recent theory in the relevant disciplines.

(1) Maximum motivation for the learner recognises that 'the creation of writing systems is significant only insofar as it leads to the acceptance and implementation of writing systems' (Fishman, 1972). Fishman's point is not a new one. As early as 1947 Nida, for example (*Bible Translating* p. 113), writing on the practical adoptations of a 'scientific' alphabet admits that 'once the translator has made a scientific analysis of the language and has reached a satisfactory one-to-one correspondence between the symbols and the psychologically significant sound units, it is sometimes necessary because of practical circumstances to make certain modifications of the scientific alphabet.' Among the factors which may force changes, he lists 'the language attitudes of the local elite, the government and the educational authorities.'

And evidence has been accumulating ever since (rapidly in the last few years as the interest in sociolinguistic phenomena has quickened) which shows that acceptance or rejection of an orthography has little to do with its linguistic adequacy, however we define that term. The primacy of the extra-linguistic factors has been stressed most recently by Sjoberg (1964, 1966) and Bowers (1968) among others, as well as Gudschinsky (1959) and the earlier writers cited in my *The Making of Alphabets.*

Smalley himself cites examples from Northern Laos, Africa, Haiti and Latin America where the influence of educated bilinguals, identification with a prestige culture and elements of transfer value (his fourth criterion) have all united to make new literates want to learn a system as close as possible to the prestige language around them. It is presumably for the same reasons that the Cyrillic alphabet is used as the model for 'the creation of new written languages' in the USSR (Serdyuchenko, 1962; 1965). Smalley also mentions the rarer (or less well-documented?) instances where nationalistic opposition to a dominant language or a colonial language may produce the entirely opposite effect: in Cameroun where tribal groups stoutly opposed writing their language with symbols based upon the values given them in French; and in Thailand where different segments of the same Yao tribe have different attitudes which would govern their motivation to reading different kinds of scripts. Ferguson (1968) has an interesting example from history of St. Stefan of Perm who, in the fourteenth century, invented an alphabet for the Komi called Abur. The alphabet was clearly based on his knowledge of Greek and Church Slavonic but he deliberately made the forms of the letters sufficiently different from either so that the Komi could regard the writing system as distinctively theirs and not an alphabet used for another language. Ferguson also mentions the example of St. Mesrop's creation of the Armenian alphabet in the fifth century which has striking parallels with the inventions of the indigenous scripts of West Africa many hundreds of years later (Dalby, 1967). In all these latter instances there is evidenced the desire of non-literate peoples to be themselves.

The practical implications of all this are obvious. In planning to introduce a writing system in a non-literate society there is a succession of choices to be made. Beyond the fundamental choice between syllabary and alphabet, there is the choice between the use of an existing system and one specially invented for the language. Within these major choices are a host of minor questions such as whether to employ diagraphs or diacritics or both, how much grammatical information should be incorporated and what features of punctuation are desirable. None of these choices can be made arbitrarily by the planner. He, rather, must consult at all stages of the planning not only governments and other controlling groups but also what Pike once called 'the naive native speaker's reaction' and Garvin has since rephrased as 'the sophisticated native speaker's reaction' (Garvin, 1954). Recent attempts to derive a writing system experimentally are encouraging evidence of the growing awareness of this fact among missionaries and others involved in literacy work. Walker (1969) describes an experiment in which Zuni speakers were asked to indicate spelling preferences for Zuni words dictated by the experimenter. The results seem to indicate a bias in favour of English sound-letter correspondences as against a more 'phonemic' spelling probably due to the fact that all the subjects were literate in English. Venezky (1970) has discussed experimental approaches to the making of orthographies suggesting refinements such as tests for reading as against spelling preferences and for testing the learning rates of illiterates for alternate writing systems. He thinks such attempts to derive a writing system experimentally must be viewed as a major step forward, however difficult the experiments are to design and laborious and expensive to execute. It is worth mentioning perhaps that concern with the native speakers' reactions to a proposed writing system are well in line not only with present sociolinguistic thinking but with the influential theories in linguistics of the transformational-generative grammarians who give a central importance to the native speaker's intuitions about the structure of his language and who have reverted in the area of phonology to a view of the phoneme very similar to Sapir's 'abstract' view (see below).

It is more convenient to consider Smalley's fourth criterion next, since this has already been mentioned and in some senses, the two principles of 'motivation' and 'transfer' are interrelated. Many of the orthographies devised by missionaries and others are for use in multilingual societies. Some, perhaps, the majority are 'transitional' orthographies (Venezky) intended only for the initial acquisition of literacy in some minor first language after which it is expected that the learner will be transferred into reading in the national language or language of wider communication in his area. An example of a somewhat different type of transitional orthography is the ITA or Initial Teaching Alphabet which has been used experimentally in schools in England and the United States for about ten years (Downing, 1967).[1] Smalley's fourth principal is the principle that 'having learned to read his native language, a reader should be able to read the trade or colonial language of the area with as little difficulty as possible in the transference of the value of the symbols.' A good deal more is implied, of course, than simply choosing to write 'on' for sound /u/, say, in a language of francophone Africa (Hovis, 1955). The problem is a good deal more complicated than that, especially where non-roman scripts are used. Maximum transfer means following all the conventions associated with a writing system including the less desirable features: the Thai manner of writing vowels around the consonants or the vowel pointings and other difficulties of the Arabic script.

But just how serious a psychological problem is transfer? There is not much experimental evidence one way or another on this question in the psycholinguistic literature. (Venezky mentions some.) On the other hand, there is empirical evidence enough to suggest that once literacy is obtained in one language, there is rarely trouble in obtaining it in another language with a similar type of writing system, provided the reader has already acquired the second language.

And given a certain view of the writing process there will always be difficulties in following the principle of maximum transfer if only because no two languages are that alike. Take the case of nasalized vowels in French, for example. These are written with a following *n*. The letter sequence is relatively unambiguous in French. This spelling convention has been followed in a number of West African languages for reasons of motivation and transfer. But in these languages, the letter sequence *vowel + n* then becomes a source of potential confusion because there are also sound sequences of a vowel followed by an alveolar nasal consonant in places where these do not occur in French (Smalley, Hovis, Bamgbose, Awobuluyi). Another problem exists with regard to the spelling in the transitional orthography of loanwords from the target language. In most languages written in the Arabic script it has been traditionally the case that Arabic loanwards are spelled as they are in Arabic regardless of their pronounciation in the borrowing languages, 'a procedure that facilitates the study of Arabic or other Islamic languages but causes trouble for the monolingual person learning to read his own language.' (Ferguson, 1968) This was also the earlier Russian practice when using the Cyrillic alphabet for the minority languages of the USSR but Soviet linguists now seem to prefer to spell Russian loanwords in a manner consistent with the pronunciation and orthographic conventions of the borrowing languages. As to which of the two is the better practice, the Arabic or the present Russian, it can only be said that the answer depends crucially on what view is taken of the relationship between spoken and written language. This brings us back to Smalley's second (and, possibly, third) criterion.

It is obvious that for Smalley the optimal writing system for any language would be something very like a phonemic transcription of the language giving 'maximum representation of speech' but tempered perhaps by certain concessions to practicality especially where a particular phonemic distinction has low functional load. This is an attitude to writing not far removed from the typical attitude of the Bloomfieldian era which is marked by such features as a rather rigid insistence on the derivative character of writing as against speech, a 'functional' or 'physical' view of phonemics and reflecting in a rather general way the positivistic intellectual climate of the period, a strict adherence to inductive discovery procedures in analysis. There were dissenting views, of course: some are cited in my earlier paper. Vachek (45/49) and Bolinger (1946) asserted the mutual independence of the phonic and graphic systems though they both attest the same thing. (See also Pulgram (1957; 1965) and Gleason (1963, pp. 108–111) among others.) And in phonology, Firth questioned the 'once a phoneme, always a phoneme' position, preferring a 'polysystemic' approach which gave theoretical recognition to the fact that features of a sound which are distinctive in one position may not be distinctive when that same sound is in another position; and to the fact that there may be significant phonological differences between various divisions of a language, between, say, different elements of the lexicon or between the parts of speech. Firth also advocated the use of deductive procedures in analysis. These procedures operate in essentially the reverse order from the inductive discovery procedures and hence grammatical information is always available if needed in the phonological part of the description (Fudge, 1970).

These dissentients apart, it would still be true to say that in the twenty-five year period which ended in 1957, the dominant view of language in the United States, at least, was that of the structural school of linguistics, associated primarily with the name of Leonard Bloomfield.

Attitudes have changed dramatically since 1957 under the influence of transformational-generative theories in linguistics of which the first and leading proponent is Noam Chomsky. Recent work in phonological theory, within the framework of transformational grammar, is, like Firth's, grammatically-oriented. In contrast to the many structuralists' descriptions, generative treatments begin by stating syntactic structure and only then pass on to phonology which can make use of any syntactic facts which are relevant. In *The Sound Pattern of English* (Chomsky-Halle, 1968) the two authors provide a description of English phonology which postulates an abstract level of representation of words and then provides general rules which operate on the abstract underlying forms within their syntactic context to convert them to their surface phonetic realizations. A particular consequence of this recent work of special relevance to the design of writing systems is that it has provided a respectable theoretical basis for a reappraisal of English spelling. Chomsky has recently pointed out that insofar as it corresponds in essentials to the abstract lexical representations postulated in his 1968 work, the conventional orthography represents 'a near optimal system for representing the language' (Chomsky, 1970).

Carol Chomsky (1970) has examined the implications for reading and writing of this new, positive view of English spelling. In favour of 'lexical spelling' and the conventional ortholography which corresponds so closely to it, she finds, first, that lexical spellings represent meaning-bearing items directly without introducing phonetic detail irrelevant to their identification and so permit reading with more efficiency. Second, she believes that in a very real sense, the lexical level of representation and the corresponding aspects of English orthography have a psychological reality for the language user. Third, she is of the opinion that the abstract lexical level is highly resistant to change over time and in space. Pronunciation shifts stem from adjustments of phonological rules rather than differences in lexical spellings. It is for this reason English orthography remains effective over time and is a reasonably adequate system of representation for British and American-English and for the vast range of dialects that exist within each country and around the world.

The implications of this view of English orthography for reading are several. It implies, first, that what the mature reader seeks and recognises when he reads is not grapheme-phoneme correspondences but rather the correspondence of written symbols to the abstract lexical spelling of words. The child beginning reading on the other hand may assume that the orthography is in some sense 'regular' with respect to pronunciation. But in order to progress, he must abandon this early hypothesis, and come eventually to interpret written symbols as corresponding to the more abstract lexical spellings. Failure to make this transition successfully is probably at the heart of the difficulties the 'poor reader' experiences.

The Chomskian influence in linguistics has undoubtedly been responsible for parallel approaches in the rapidly expanding field of psycholinguistics. And with this new cognitive approach in psycholinguistics has come a greater attention to reading.[2] The early applications of linguistics to reading were narrow. Bloomfield (1961), for example, concentrated almost exclusively on phonemics, going only so far as to seek regularity of phoneme-grapheme correspondence in the materials. He did not study the process of reading nor make a full application of linguistics to it. Fries (1964) looked at reading theoretically but he also focussed on a narrowly defined linguistic principle of minimal contrast (Goodman, 1969). Indeed, a basic assumption of these early applications would appear to be that linguistics can be applied to reading *only* to explain phoneme-grapheme correspondence. And given the prevailing theories of linguistics of the time, this may well have been true. Much recent work in psycholinguistics has challenged this assumption from a number of different angles and presents a very different view of the reading process from that which generally obtained in 1958. (If it is possible at all to speak of a general view of reading at that time.) The recent literature on reading from the psycholinguistic point of view is already extensive. To attempt even a cursory survey of all the pertinent books and papers would be beyond the scope of the present review. It will be sufficient for present purposes to outline a few of the more widely held assumptions about reading that have been propounded in recent psycholinguistic works on the subject.

There seems to be general agreement among most writers on the mutual independence not only of writing and speech but of writing and reading. And for purposes of pedagogy, reading is held to have priority over writing (Fries, 1964; Venezky, 1968).

Some psycholinguistics (e.g. Chall, 1967) see reading as matching oral units with written units, an operation they have frequently called 'decoding'. But this view of reading as decoding the spoken language has been challenged vigorously by Goodman (1971) and Smith (1971) among others, who assert in their different ways that reading is not primarily visual; only a small part of the information comes from the printed page. Words are identified on a basis of visual feature relationships in the configuration as a whole not by synthesis of information about individual letters or letter sequences. And comprehension must precede the identification of words because it reduces uncertainty and permits identification on minimal visual information.

If these assumptions are correct it would appear that the way in which a fluent reader identifies words has very little or nothing at all to do with phonology; the sound-spelling relationship is not of critical importance. An extreme conclusion to be drawn from this view is that the alphabetical principal is irrelevant for reading. The fluent reader reads English or French or German efficiently only insofar as he treats the written language as if it were ideographic: 'Kun-reading', rather than 'on-reading' as it were (Makita, 1968). Writing, of course, is another matter. In writing, the alphabet has the edge if only because it is easier to reproduce words that are made up of a relatively few letter elements than the thousands of, say, Chinese ideograms. And it would appear that words written alphabetically are easier for the beginner to copy and to learn (Smith, 1971; Kolers, 1969).

The mention of reproduction returns us to Smalley's last criterion. For him, the fact that it provides maximum ease of reproduction is the least important desirable feature of an orthography. On this point, he would seem to be against the consensus of present day opinion. However distasteful, the fact has to be accepted that it is the typewriter and type setting machines that call the tune today (Ferru, 1966).

The design of letters and alternative symbols for writing was considered in some detail in my earlier paper. The subject continues to attract attention: Smalley (1964), Ray (1963), Malkiel (1962), Pulgram (1965), MacCarthy (1964), Chao (1968), Venesky (1970) . . . .

There is by no means general agreement on every aspect. Smalley, for example, sees the linearity of roman as an advantage. Others would disagree. It seems largely because of its linear nature, that our writing carries so little visual information, as compared with, say, multi-directional and two-dimensional ideograms of Chinese. Quite simply English words do not stand out so prominently in a text as do the Chinese characters (Chao). Making roman type larger is out of the question both economically and visually because words in roman are so much wider than they are deep. (MacCarthy discusses some recent proposals to improve the readability of roman without basically changing the alphabet. These proposals include an ingenious suggestion that texts might be printed in overlapping lines of print in alternate colours to be read with complementarily coloured glasses). Roman is considered by some to have another advantage over some alphabets in the small number of characters it employs. If this is an advantage, it is an advantage only from the printing point of view: English in Roman is easier to print than Devanegari, say, which requires four cases to accomodate it as against two. But it is possible to look at this another way; if Roman had a thousand characters, no word in English need be more than 2 characters wide. Chao (1968) makes two guesses at what the balance between number of symbols and size of symbol complexes might be in an ideal writing system and in each case arrives at a figure for symbols substantially in excess of the number of letters in roman. He believes somewhere between one hundred and seventy and two hundred monosyllabic symbols would be about right.

The problem in all of this, of course, is the same problem that is encountered in other aspects of orthography design: different features are desirable for different purposes and sometimes these purposes conflict. In written language ease of production seems opposed to ease of discrimination, so that we find rapid cursive harder to read than more careful hand. And sometimes ease of production is opposed to what is desirable on sociolinguistic grounds: as in the suggested use of Roman capitals to replace non-Roman letters in the alphabets of Francophone West Africa. To use capital letters in this way might be expedient since they are already on most typewriters but to do so would be culturally ridiculous. The PBA has no provision for capitals and proposes that letters be disjoined in both print and handwriting on the assumption that disjunctive writing discourages the proliferation of cursive forms and so promotes legibility.[3] This assumption may very well be true. Legibility will be promoted through uniformity. But what of the special hands and types for special purposes? Writing has many uses: religious, academic, ornamental. . . . (Rudolf van Larisch frequently attacked what he called 'brutal legibility.')

Fortunately, there is usually some scope for compromise between conflicting demands. If, for example, some letters have to be given greater complication of line and greater width, then these can be relegated normally to the less frequent sounds. Or when capitals are provided, they need not be very different from their lower-case counterparts but only, perhaps, larger. Or 'blacker'? (MacCarthy) Or both? And so on.

We have now completed our discussion of Smalley's criteria against the background of supporting and conflicting views in the literature of the subject and have reached a point where an attempt can be made to reach a few conclusions. A first conclusion which can be safely drawn is that neither modern linguistics nor modern psycholinguistics require that a writing system should be phonetic or phonemic or even one-to-one. This once popular theory is now out-dated. In the new view of reading there seems little to choose between phonemic and morphophonemic (or even paraphonemic)[4] systems of spelling. If anything a morphophonemic spelling facilitates reading better than the reverse.

From this first conclusion, a number of supplementary conclusions follow. It should be apparent that we need not be unduly concerned to mark all contrasts especially where these have low functional load. And we need not be unduly 'purist' in our attitude to mixing systems. If competent readers do process function words differently from content words[5] then, as Venezky says, that is all the more the reason for these functional words to be short and rapidly distinguishable in their written forms. As indeed they are in the PBA,[6] for example. Or again, transfer may be a less important problem than it was once thought to be, if English spelling is really as efficient as it is now claimed to be since English spelling is largely paraphonemic due to its overwhelming latinity.

Dialect problems can also be seen in a new perspective as depending more on political sociocultural and economic factors then upon psychological and linguistic ones (Wolff, 1953). If one of the great virtues of English spelling, for instance, is its uniformity across dialects and if, as Chomsky and others have suggested, English spelling is a near optimal system, then, rather clearly, the difficulties speakers of some dialects have in learning to read must be for other reasons than the way they speak. Sociolinguists who have worked on these problems in the urban ghettos of the United States are inclined to see the difficulties in terms of cultural rather than linguistic differences (Labov, 1969).

Much of this could have been said in 1957. (Some of it I tried to say.) But it can be said with greater conviction today. And from a sounder theoretical base. What seems to the present writer to be now the most crucial aspect of orthography design lies in the area of applied sociolinguistics. Chao's tenth requirement for good symbols is 'universality', which can be interpreted as wide acceptance over space and time. Sociolinguistics is at present only a descriptive science but it offers some promise for better research and understanding of this problem, of what is involved in acceptance and how acceptance is obtained.

Notes

[1] Another example is mentioned in Halliday, McIntosh, Strevens (1964), p. 290: The Use of a Phonological Script as a Bridge to Literacy in Chinese Characters.

[2] A second important contributing factor to the new interest in reading is the recognition that even in 'advanced' societies a reading problem exists on a massive scale. HEW's Targeted Research and Development Program on Reading comes in the United States at a time of general apathy in the developing societies so far as literacy is concerned (Foster, 1971).

[3] Early in the 1960s, Kingsley Read's design for a new (i.e. non-Roman) script for English, which had been one of the four prizewinners in the George Bernard

Shaw Alphabet Competition, was chosen, after considerable recasting, as the Proposed British Alphabet and was used to transliterate Shaw's play *Androcles and the Lion* in an edition published by Penguin Books Ltd.

[4] This term I believe is Ray's (1963, p. 96).

[5] Venezky cites experimental evidence adduced by Shapiro and Palermo (1967) that suggests that this is so.

[6] The PBA provides four unilateral signs for 'the' 'of', 'and' and 'to', saving, it is estimated, 10% of space by this device alone. Provision is made for extensive use of abbrevation but the percentage saving falls off sharply as the frequency of occurrence reduces.

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Techniques for Functional Literacy in Indigenous Languages and the National Language

Sarah C. Gudschinsky

Many nations today face the problem of illiteracy in two sharply different elements of the population: unabsorbed monolingual indigenous groups, as well as un-schooled speakers of the national language. It seems to be universally held that the fullest national development requires for a base a literate citizenry sharing a common language. This paper, then, is addressed to the problem of techniques for functional literacy in the indigenous languages (as a bridge to the national language), and in the national language.

Since a major part of the work of the Summer Institute of Linguistics has been with indigenous groups, I will begin with the problems of the monolingual Indian in Latin America.

In discussing the problem of the illiterate monolingual, we need to think in terms of a pedagogical truism—learning must begin with the known and proceed to the unknown. The 'known' for the monolingual Indian is the oral control of his own language. The unknowns include *both* the basic skills and concepts of reading and writing, *and* the oral skills of the national language.

kind of control	oral only	oral and written
kind of language		
indigenous	a. speaks an indigenous language as his native language.	b. reads and writes (as well as speaks) his native language
national	c. speaks the national language as a second language.	d. reads and writes (as well as speaks) the national language as a second language.

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An individual cannot pass directly from cell a of this chart (native control of a non-national language as an illiterate monolingual) to cell d (oral and written control of the national language as a second language). He can, however, be taught oral and written control of the national language by either of two teaching sequences: (1) by instruction in literacy skills in his own language (cell b) followed by instruction in speaking and reading the national language; or (2) by oral instruction in speaking the national language (cell c) followed by instruction in literacy skills in that language. We are concerned here with the former, and with the contribution of linguistics to the techniques of literacy teaching in the native language. (Unfortunately time does not permit me to present in detail the evidence that this is the more effective bridge to full control of the national language, though such evidence exists.)

The linguistic contribution begins with a 'phonemic' alphabet: that is, an alphabet with symbols for all the significant sounds (phonemes) in the language, and only those sounds. I will not spend time on this aspect, since there is already in print extensive material on alphabet formation including discussion both of linguistic considerations, and of social pressures (such as the need for maximum transfer to the national language) which force modification of the 'ideal' alphabet. It should be noted, however, that any major departure from a phonemic alphabet introduces difficulties into the learning process. A linguistic analysis can determine the amount and kind of confusion that would result from any given orthographic distortion, and the kind of compensation that would be required in the primer construction or pedagogical method.

It is important to note that the term 'orthography' is often interpreted in its narrowest sense, as a set of letters or alphabet. In fact, however, it embraces a complete writing system which includes a number of elements in addition to the basic letters. And this requires a linguistic analysis not only of the segmental phonemes, but also of the higher phonological layers (which have often been neglected or overlooked in traditional linguistic analysis). Here I list some of the elements that may be important in some languages:

1. 'suprasegmental features' such as stress or tone: the former is usually marked with accents – acute, grave, circumflex; the latter is most effectively indicated by raised numbers (see Sarah C. Gudschinsky, *Phoneme representation in mazatec orthrography* in *Word*, 15, (1959), p. 446–452).

2. syllable borders: In some languages these are fairly automatic and need not be marked; in other languages serious ambiguities would result if syllables were not marked. The most appropriate symbol, when needed, is a tiny dot–smaller and less conspicuous than a period.

3. word division: This is not always a simple problem. In many languages the phonological divisions do not match the grammatical divisions. In such cases, a hyphen may be very useful in marking the non-coincidental borders.

4. phrase borders: In many languages ambiguities result from not marking the borders of phonological phrases or clauses. The most common device for this purpose is comma.

5. intonation: contrastive intonation may be a vital element in any language. Usually the contrastive patterns can be adequately symbolized with punctuation marks.

We turn now to the teaching of reading, and to the construction of primers to be used in the teaching.

For some time we have been using a teaching system that parallels our linguistic analysis in that it is based on the dual principles of recognition of contrasting total patterns, and the learning of substitution classes at any one point in the pattern structure. That is to say, we teach contrastive words as units, (and later phrases, clauses, and even whole sentences). We teach the pupil to recognize the sets of syllables that substitute for each other in the words, the sets of letters that are mutually substitutable in syllables, the sets of words that are mutually substitutable in phrases, etc. The extent to which he can recognize the substitutable parts – especially on letter and syllable levels – is a measure of his ability to figure out new material that he has never seen before. The extent to which he can recognize a whole clause or sentence at a glance is the measure of the fluency with which he reads. His understanding is a function of the two skills. If he sounds out letter by letter, he may get the right sounds but be unable to make sense of what he is sounding out. If he reads whole sentences at a time by a guess method, he may guess wrong and miss the meaning entirely. If he can read accurately in phrase sized units it is probable that he will understand what he is reading.

It is here that grammatical and lexical analyses make their contribution.

Traditionally, grammatical analysis has concerned itself with the structure of words, phrases, and clauses or sentences. It has been used, in primer making, as a check on the correctness of the forms used at these levels. It has also been used as a source of information as to the substitution possibilities at each of these levels.

Unfortunately, preoccupation with the lower level structures has sometimes resulted in a stiltedness and unnaturalness in the primer content that is confusing to the new reader. Tools are now being developed for analysing units larger than a sentence, and for testing the naturalness of such units.

When the primer maker knows what items are obligatory for normal sentence and paragraph structure (e.g. function morphemes) he can plan for teaching them early in the primer. This makes possible normal grammatical material from the beginning and facilitates reading for meaning.

Traditionally the lexical content of the primer has been limited by artifical notions of simplicity such as length of word, kind of syllable pattern, or occurrence on some arbitrary list of 'most common' or 'most useful' words. A more adequate lexical analysis of the language should make possible a more culturally relevant choice of vocabulary, and more natural collocations and discourse strings.

Up until this point, we have been considering specifically the techniques for literacy in the Indian language and the contribution of linguistics to these techniques. This is not, however, the only literacy problem facing most of the Latin American nations: many speakers of the national language are also illiterate. This is further complicated by the fact that not all speakers of the national language speak the same variety. Educated persons read, write, and speak the standard literacy variety of the national language, as a *second* variety which they learned in school. By literacy variety, I mean that standard which is accepted for formal writing, for speech making, and the like. They also speak the standard colloquial variety of their region – that is the kind of language used when talking with each other informally, or when talking with their families. These standard colloquial varieties vary from country to country, and perhaps also from region to region within a country. Within each country there are also some variants that are not considered acceptable – that are felt to be substandard and which mark their speakers as uneducated. I have included all of these varieties both standard and substandard on the following chart, shading in the cells which indicate the competence aimed at for the population as a whole. That is to say, to be a fully participating member of the national life, an individual should have good oral control of the standard colloquial, and of the written colloquial (for letter writing, etc.). He should have a reading knowledge of the standard literacy language – so that he can read and understand what is written, though he himself may never be called on to make a formal speech, or to write anything requiring polished literary style.

language skills	substandard			colloquial			literary		
	oral	reading	writing	oral	read.	write.	read.	write.	oral
native speakers of substandard variety	X			////	////	////	////		
of standard colloquial				X	////	////	////		

X indicates the skill that each speaker brings with him to the literacy class.
//// indicates the goals.

Finally, I would like to discuss the contributions of linguistics to functional literacy for the speaker of the national language. One of these is in the choice of language variety in which to teach literacy skills. May I point out that surprising fact that in most countries teaching is done very wastefully in that we begin *not* with what the pupil already speaks, but with either the literary variety which he must learn as a semi-foreign language, or with some kind of 'primerese' which is not spoken by anybody.

Teaching materials for pupils who speak standard colloquial might better be in that variety. To make the use of a non-literary variety seems natural in written material, the primer might be organized as a set of conversations, or of friendly letters.

Teaching materials for the native speakers of a substandard variety presents a much greater problem, since we do not want to perpetuate those features of the language which label it as substandard. Here, then, is a special task for the linguist: to analyse each such variety and to determine the points at which it overlaps with the standard colloquial. Materials for instruction in the basic literacy skills might use the features that occur in both. The pupil can then be brought to complete oral control of the standard colloquial by building on his minimal control of the literacy skills.

Note that the diagram for the speaker of a non-standard dialect would be very similar to that for the Indian:

kind of control	oral only	oral and written
variety of standard language		
sub-standard variety	a. speaks a sub-standard variety as his native language	b. reads and writes that part of his native variety that is like standard colloquial
standard colloquial	c. speaks the standard colloquial as a second 'language'	d. reads and writes (as well as speaks) the standard colloquial as a second 'language'

This paper might be summed up as follows:

The goal of a fully competent handling of the national language by the entire population can be reached with materials that are linguistically and pedagogically sound by the following progression: a) basic literacy skills in his own native language, or variety of the national language; b) oral and literacy skills in the standard colloquial, and c) a measure of understanding of the literary variety.

Discourse Analysis and Literacy

Robert E. Longacre

Materials to teach reading and for the new literate to read must be in the language that the learner actually speaks. Otherwise the student is confronted not only with the task of learning to read but with the task of learning a second language at the same time that he is learning to read. The latter, added to the former, may make the overall assignment impossibly difficult. This has been and remains the greatest argument for bilingual education with literacy in one's first language.

But lip service can be paid to this ideal while the literacy textbooks and reading materials fall woefully short of being in a language that *anybody* speaks. The mechanics of producing literacy textbooks – e.g. restricted phoneme inventory in beginning lessons and the desire to repeat new words a certain number of times – can result in an artificial language that is a far cry from what people in a language community talk. This is well known. 'Primerese' and 'Dick and Jane' lingo have been criticised by various writers. The purpose of this paper is, however, somewhat different. Rather, I wish to argue here that unless the discourse structure of a language is studied and controlled the attempt to produce connected and meaningful material in literary textbooks and reading materials is going to fall short of its goal.

Why? Simply because discourse is the primary unit of linguistic structure. There is a sense in which words, phrases, clauses, sentences, and paragraphs are contrivances as well as discoveries of the analyst. They represent *dissections* of connected discourse, vivisection of living language. While it is not at all my purpose to claim that these constituents of discourse have no reality, that they are merely inventions of the analyst, nevertheless it is my claim that people are more immediately aware of speaking and hearing discourses – whether long or short, monologue or parts of a dialogue. What the speaker is most aware of is that he is uttering a remark, query, or proposal, or responding to one of these, or he is telling a story, giving directions (procedure), explaining something to someone, expressing his opinion on some issue, or trying to modify someone's conduct. He clears his throat, opens his mouth, expresses himself, concludes what he has to say, and shuts his mouth – and the intervening unit is a discourse.

What then of the discourse constituents? Doesn't one still have to form words correctly, put words together to form phrases, join phrases into clauses, clauses into sentences, sentences into paragraphs, and paragraphs into discourses? Certainly. The discourse constituents must be correctly designed. But – and this is the important point – even if we understand rules for the formation of various discourse constituents on various levels, we do not know how to *use* a constituent correctly without understanding the structure of discourse. It is one thing to describe the internal structure of a verb in a language with heavy affixation. It is something else to know where to use one verb form rather than another.

The new literate must have material which is intelligible and pleasing. He must be able to identify with what he is learning to read. This identification is possible only if the literacy textbooks and reading material approximate the discourse structure of the living language.

One word of caution. I do not mean to ignore the inevitable distinction between oral and written forms of a language. It is a continuing marvel to me that capable new literates who begin to write appear to be preprogrammed for making a smooth and sure transition to the written as distinct from the oral form of their language. Certain redundant features, repetitions, and colloquialisms are rejected in the written style. Nevertheless, as a writer grows in capacity there is a tendency to reach out anew for the resources of the spoken language. A skillful writer can exploit these resources better than a novice.

This leads then to a slight restatement in the job description of the preparer of literacy materials: he is to see that those materials approximate the proper structure of written discourse enlivened wherever possible by features of oral discourse. This holds whether the preparer of literacy materials actually writes some of the materials or whether he selects and edits the writings of new literates.

I discuss in the balance of this paper the following aspects of discourse analysis as related to literacy: distinctions in discourse genre, features of discourse, and discourse constituents.

1. *Types of discourse genre.*

If in literacy materials we are to approximate the actual usage of a language we must, as we have insisted, take account of discourse structure in that language. Discourse structure exists, however, in various discourse genres, and to some degree the rules of composition are different from genre to genre (Longacre, 1976; Forster, 1975). The composition of a first person narrative is not the same as that of a third person narrative, nor is either the same as a how-to-do-it text. Nevertheless, narrative of various sorts and how-to-do-it texts often resemble each other more than either resembles a descriptive or a hortatory text. In addition to all these forms and many modifications of them there also exists dialogue elaborated into drama (by the dropping of formulas of quotation).

In preparing reading materials for the new literate or the partially literate the following considerations have to do with choice of discourse genre: 1) Which genre approximates best how people actually talk? 2) which genre is favoured in the language community in terms of reader interest? 3) which genres tie in best to the needs of people, i.e. the need to perpetuate certain skills or to introduce new skills, the need to give increased understanding and awareness of the outside world, the need to preserve certain cultural interests such as folklore, etc.? and 4) what are the length and complexity of various genres in terms of their being handled by the new reader?

1.1 In respect to consideration 1) above, it is of crucial importance that the reader be able to identify with what he reads as his own dialect and level of usage. Obviously, certain texts are marginal for the community as a whole. Some language communites have 'deep' talk as a type of abstruse and metaphorical discourse which only the initiated in the community understand. This discourse may be used in very special situations, e.g. bargaining for a bride in Ata Manobo culture, in the southern Philippines. Discourses spoken by shamains often have such abstruse characteristics. This is due sometimes to the retention of forms that have otherwise become obsolete or the borrowing of forms from some prestige language. At any rate, such texts approximate shop talk in their use of a universe of discourse not available to the uninitiated. Mythological texts sometimes have similar characteristics in that they are highly stylicised, contain obsolete terms, and may involve a certain floridity of style that does not characterise the speech of an average person, especially of the younger generation. It by no means follows, however, that mythological texts should be avoided as a rule of thumb in preparing literacy materials. Sometimes such texts are precisely what people are interested in (according to our second consideration below). Sometimes, furthermore, they involve no features which present special difficulty. First person narrative and less formalised third person text, if interesting and relevant in content, sometimes approximate quite well the way people actually speak. There is no reason why explanatory and hortatory discourse can not also approximate conversational norms. The latter sometimes, however, involve special oratorical styles.

In considering approximation to how people actualy speak, dialogue and dramatic discourse must not be forgotten. In working with a colleague in the Philippines, after going over a number of texts of varous types, my colleague pulled out from the bottom of the pile a text which she showed to me somewhat apologetically with the comment 'This text seems so confused I am not trying seriously to analyze it.' It appeared on examination that the text was a dramatic text, in fact a dramatic account of wild pig hunt. Various participants spoke out freely. Few quotation formulas were used. One was not always certain how many speakers were involved in a given portion of a dialogue or whether two consecutive stretches were spoken by the same speaker. It did not really matter. The point of the text was it took you there to the milieu of a wild pig hunt. It was a very skillful text. It was, however, one which the analyst and literacy worker might easily overlook because of the bizarreness of it to an outsider to the language community.

Much of the appeal and effectiveness of dramatic discourse of the sort just alluded to (Longacre, 1968) results from its approximation to live conversation. The latter involves, however, features that are only imperfectly mirrored even in dramatic discourse: ellipsis, reliance on situation, simultaneous utterances by several speakers, interruptions, time lapse with silence rather than speech, and passage by free association from one topic to another. A dramatic composition neither can nor should reproduce these features completely. Nevertheless, in partial use of such features – consonant with the overall artistic unity of the composition – a discourse of considerable interest and appeal is generated.

Dialogue encapsulated in narrative materials is somewhat tamer and more removed from the live conversation. Nevertheless, even here some of the effectiveness of approximation to live conversation is felt.

1.2 The second consideration – which genres are favoured in terms of reader interest – overlaps somewhat with the first. More is involved here, however, than approximation to live conversation. Reader interest also ties into matters of the *needs* of the newly literate (see 1.3 below). Reader interest may be somewhat at cross purposes with considerations of simplicity (see 1.4 below). Thus, narration is often more structured and involved than descriptive or hortatory text. Nevertheless, people are, as a whole, more interested in a good story than in description or exhortation. One is more likely to read 'My most unforgettable experience' than 'Ten good reasons for stopping smoking' (especially if one is a smoker).

This brings up the possibility that the various discourse types can be arranged in a scale of vividness (Whittle, 1971). In such a scale drama ranks first (see 1.1 above); it is essentially a more vivid way of telling a story. Secondly, comes narrative with possible sub-rankings according to varieties of narrative in a given language community. Thirdly, we can probably rank procedural discourse, if there is a desire on the part of people to conserve dying skills or to introduce new ones into a community. There is no doubt that there is a steady sale on the Western European and American market of how-to-do-it booklets of all sorts. Possibly below this in interest (fourth place) come various sorts of descriptive text. It takes a certain amount of leisure for people to be interested in description – which is not so immediately geared to entertainment or to learning needs. Finally, I suspect, we should rank (fifth place) any kind of behavioural discourse, especially hortatory. Hortatory discourse in the sense of a speaker trying to influence the conduct of an addressee is, I believe, a cultural universal. Typically, the addressee is somewhat uncomfortable in such a situation and typically all hortatory discourse requires some sort of social hierarchy in which the socially superior is entitled to exhort the socially inferior.

The low interest rating of hortatory discourse can be seen in church on a Sunday morning. As long as the preacher is indulging in hortatory discourse narrowly conceived (or poorly disguised) the congregation may get a bit restless or comatose. If, however, he switches briefly to a narrative to reinforce or illustrate some point, even the children are likely to awaken (to find how the story comes out).

Nevertheless, certain particular forms of hortatory discourse may be of interest in a language community, for example, advice to newlyweds. In this case the reluctance of the average human being to accept advice is outweighed by a sense of novelty and strangeness in a new situation where such advice might be helpful.

1.3 The needs of people in a language community may partially dictate choice of discourse genre for the new literate. There may be a nostalgic desire to perpetuate old skills that are on the point of becoming obsolescent. In such a case, procedural discourse is indicated. There may be also a desire to introduce new skills. Thus, in certain parts of the world where exploitation of tribespeople or peasants is very common on the part of surrounding wealthy traders or landowners, a crucial type of text for the new literate is the mathematical text. The new literate must learn certain elementary mathematical skills if he is to protect himself from further exploitation. Here it is indeed fortunate if we can find some native text material to model such mathematical texts on. I received such a Trique text from Rosa de Sandoval (a bilingual speaker of Trique-Spanish) which had to do with comparison of former currency (involving three-centavo piece and shillings) with present currency in Mexico. The text fairly bristles with terms for addition, subtraction, and multiplication. It forms a very nice model on which one could compose a mathematical text for the new literate.

People may also be hungry for information regarding the outside world. They may want to know what the rest of the country is like beyond their village or what the world is like or what the universe is like. They may be interested in a simple explanation of the solar system, the moon, the galaxy. Such needs can be met by explanatory text.

1.4 The length and complexity of texts must be taken into account as well. In Western European literature at least, some forms of narrative appear to be considerably simpler than the essay or scientific description. Likewise, we expect a theological treatise to be more complicated than a fairy story. Somewhat the inverse of this situation is encountered in a typical language of highland Papua New Guinea (Longacre, 1972a). Here we find short sentences in short paragraphs in descriptive and hortatory discourse but extremely long, run-on, involved sentence and paragraph structure in narrative discourse. In brief, the handling of narrative discourse requires more skill than the putting together of the comparatively disjointed material of the other two genres. Here we must balance matters of approximation to how people talk, interests of the new reader, and needs of the people with considerations of what they can handle in reading.

2. *Features of discourse.*

Features of discourse (Levinsohn and Longacre, in press) must be recognized and controlled by the preparer of literacy materials. Attention to such features leads to naturalness of style. Naturalness can never be taken for granted. It is never an accident but always an achievement. Furthermore, it is an achievement which may make the whole difference between acceptability or unacceptability of materials.

2.1 Participant identification and references. The discourse has a *cast* of participants and not all participants are of the same rank. One of the most useful divisions of the cast is *major* versus *minor participants.* A major participant is one prominent enough in the discourse to become thematic participant ('topic') of a paragraph. The major participant is associated, moreover, with the discourse as a whole not with just one part of it.[2] In confronting two or more participants – both major or both minor – a further classification distinguishes participants of the *same rank* from those of *unequal rank.* Within the major participants one may be singled out as the *central character* of the story.

It must be emphasised that the above is not merely a rhetorical classification. It entails in many languages distinct sorts of participant references. A major participant – especially the central character – may be minimally marked, that is, he is taken for granted and referred to by a verb ending or a pronoun, while a minor participant must be carefully introduced by name, referred to clearly while on stage, and taken off stage. There may be special verb morphology for referring to major versus minor participant, or special noun case morphology for marking the noun referring to the major versus minor participant, or even a difference in pronoun series referring to the two. Likewise, participants of unequal rank may be referred to in subtly different ways.

Somewhat meshing into the above consideration is a matter of discourse roles such as *initiator, undergoer* and *prop*. The initiator is clearly a major and ranking participant. The undergoer is characteristically a major participant but often one of inferior rank. The prop is clearly a non-ranking participant that is either a comparatively unimportant person, an animal, or an inanimate object.

Author viewpoint can also affect the treatment of discourse reference in a narrative, i.e. the author may choose to associate himself with one third person participant as opposed to other third person participants, and this is somehow indicated in the formal structure of the discourse. Thus in the Oksapmin language (Papua New Guinea, data from Marshall Lawrence), there is a special morphological marking of a verb which refers to a participant who is thus identified with the author's point of view. Or there may be special use of pronouns and deictic (demonstrative) constructions as in Inga (a Quechuan language of Colombia, data from Levinsohn). In the discourse structure of English, author viewpoint is more commonly seen in terms of the use of such motion verbs as 'come' or 'go' and in 'appearance' verbs which seem to draw vector lines to the main participant (Longacre, 1971; 178–9). Furthermore, we are told the inner thoughts of the participant with whom the author identifies himself but not the inner thoughts of other participants.

Author vantage point of this sort should not be confused with author sympathy. Thus in Catio folklore (Colombia; Schöttelndreyer and Levinsohn, 1975), it is characteristic for the author to take the vantage point of the villain to the point of telling us the villain's thoughts in his decision making, etc. while it is equally clear that the author's sympathies are with the hero who is suffering at the hands of the villain and who eventually triumphs.

2.2 Progression versus digression in a text. These useful terms (Levinsohn, 1975b) serve to indicate progress along the backbone of a discourse versus digressions which are necessary to flesh out a discourse. The ways to mark the backbone of a discourse are varied. Sometimes the backbone of a discourse versus digressions from backbone is marked by the choice of tense. There is a special narrative tense (usually some sort of past tense) and we recognise that we are departing from the backbone when we encounter another tense, e.g. stative or copulative forms (which describe background situations). Sometimes progress on the backbone is distinguished from digression by the type of linkage used, especially resumption or back reference to a previous clause in the onset of a new sentence. Thus we may have in the discourse such a sentence as 'John looked for a club to club the monster with'. The next sentence may begin with a subordinate clause or a gerund phrase such as 'Having looked for it', and then proceed to give the next event in the progression of the story. On the other hand, it is not uncommon for such a back reference to proceed along an expectancy chain, i.e. the sentence 'John looked for a club to club the monster with' can be followed by a sentence which begins with 'On finding it. . .' Such back reference sometimes detours around background material so that a back reference of this sort may refer back three or four sentences while intervening sentences which are sandwiched in describe the situation, motivation, purpose etc.

Levinsohn (1975b) points out that in Inga the same devices which mark progress along the action line of a discourse may be used somewhat differently to mark digression as well. Thus there is a characteristic Inga affix which occurs most commonly on temporal expressions or back reference elements which mark progress along the backbone of a story. When the same affix occurs, however, on a locational or instrumental phrase within a sentence it marks a temporary digression into description of the location or instrument involved in the action at that point. Here there is a normal expectancy in terms of what word class the affix should occur on if it is marking progress along the backbone of a story. When the affix occurs on some other class of words it is marking progress not along the backbone but digression into background material.

2.3 Linkage and flow. These matters have been somewhat anticipated in the above discussion on participants and progression (digression). The text must keep going. Commonly, showing progress through a text is marked by use of conjunctions and sentence introducers. A conjunction may be a simple morphological particle or it may be in effect some sort of stylicised verb such as 'do' or 'be' which receives a minimal amount of verbal affixation such as 'Thus-it-being', 'Thus-he-did', or even just 'Thus-being' or 'Thus-doing'. Alternatively, a deictic word such as 'this' or 'that' may be the morphological base on which a conjunctive complex is elaborated. The later two devices, i.e. use of a 'mini-verb' and deictic base for conjunctions are especially common in the northern half of South America. Simple conjunctions or conjunctions with a minimal amount of compounding of conjunctive bases characterise more the Indo-European area or the Philippines. Verb affixes that are conjunctive in force (e.g. 'went-he-but') are common in Papua New Guinea.

Back reference as briefly described above is a further standard linkage device in many languages. In a typical Philippine narrative paragraph approximately 50% or more of all sentences which reflect progression along the line of a discourse are joined by some sort of back reference. In procedural discourse in a typical Philippine language back reference is almost 100% between sentences along the backbone of a discourse. Such back reference may be by means of a subordinate clause with such a word as 'when' or 'while' (which can be simply an affix on the subordinate verb) or it may be by means of some sort of special gerundative or dependent verb. Needless to say, the grammatical form of back reference must be carefully pinned down, catalogued and controlled by the preparer of literacy materials.

Consecutive time horizons may further facilitate discourse flow in narrative and (with certain qualifications) in procedural discourses. Thus, a narrative may proceed somewhat as follows: 'In the year 1947. . .'; then (in the next paragraph) 'For the next next five years. . .'; then (in another paragraph) 'In 1952. . .'; and finally (in the last paragraph) 'More recently. . .' A procedural discourse does not refer in this manner to actual *calendar time* but is geared rather to *time intervals.* Thus a prescription of a ritual observance might go somewhat as follows: 'Begin (the procedure) at sundown. . .; then (in the next paragraph) 'Two hours after sundown. . .'; then (in another paragraph) 'At midnight. . .'; then (in another paragraph) 'About 3:00 a.m. . . .'; and (in a final paragraph) 'At the first sign of dawn. . .'.

2.4 References to time and place. This has been somewhat anticipated in the above discussion in regard to time. It should be evident by now that when we think of a clause structure as containing a verb, subject, object, instrument, etc. with so-called 'optional' references to time and location that time and location are optional only within the very narrow confines of inspection of the clause structure itself. References to time and place are conditioned heavily by discourse level constraints. Narrative discourse, especially a travelogue or a story heavily geared to movement through space, has a *trajectory* which consists of a series of places arranged in spatial sequence. Movement through space sometimes is, in effect, a surrogate for movement through time since it is assumed that it takes time to move to a further point along the trajectory. In a travelogue discourse, references to progressive points on a trajectory mark the backbone of the discourse itself while references to events which happened at various points are departures from the backbone.

2.5 Overall structure of a discourse. One is tempted here to repeat Aristotle's aphorism that everything must have a beginning, a middle, and an end. To the student of discourse it is more useful, however, to consider that every discourse must have a beginning and an end, and may mark one or more high points in between. Discourses have ways of beginning and ending that are often formulaic and vary according to genre. Whether or not a discourse formally marks one or more high points depends on whether or not it is characterized by a feature which can be called *tension* (Forster, 1975). A narrative discourse which is not characterized by this feature is episodic (i.e. a string of episodes without build-up). A story which has the feature of tension may have one or more marked peaks. There will be a climax (confrontation) when the plot comes to a head. There will also be a crucial event (denouement) which makes possible resolution of the plot. When either or both of these points are marked in some formal way, a story has *peak(s)*.

The peak(s) of a story can be marked by a variety of devices: (1) by rhetorical underlining, i.e. use of paraphrase and repetition; (2) by a concentration of participants (the crowded stage); (3) by heightened vividness attained through (a) tense shift (e.g. from past to historical present or from an uninvolved to an involved tense), (b) through person shifts (e.g. third person to first person inclusive of second person or to a second person), (c) through transition from narrative to dialogue or to drama (dialogue without formulas of quotation), or (d) through use of onomatopoetic words; (4) by change of pace through variation in size of units (shorter sentences to longer sentences or vice versa), or through use of fewer conjunctions and other transition signals; and (5) by a change of vantage point or orientation – including role reversals (Longacre, 1976; Ch. 5).

Note that (3) above ties into our contention that tense has to do with overall discourse structure previously mentioned once before. Further, note that even the use of pronouns in a discourse is influenced at this point. As for (4), the change of pace through variation in size of units has been noticed in Papua New Guinea, in South America, and in English and American literature. As for (5), the change of vantage point or orientation, including role reversal, ties into our discussion above regarding initiator, undergoer, and prop in a story. Thus, with great frequency, there is an important point in a story at which the initiator becomes the undergoer and the undergoer becomes the initiator, and this is marked in some formal fashion so that the reader cannot miss it. A rather striking example of the above is found in Cayapa (Ecuador, Wiebe, 1975). In Cayapa narration, progress along the important event chain of a story is signalled by an affix *-ren* which occurs on the verb or some other word of a sentence. It does not itself mark the important event but it says that an important event is coming up in the next main verb. When, however, we approach the point of a story in which role reversal takes place the *-ren* suffix is replaced by an *-n* suffix which characteristically occurs a number of times. It is a sort of distant early warning that role reversal is coming up, that the hero who has been persecuted by the villain will now come out on top or that the comparatively unimportant younger brother in the story will now become the one able to accomplish feats his older brothers were unable to accomplish.

Every language has its bag of tricks, i.e. ensemble of devices, whereby it is able to mark the peak(s) of a story dramatically and effectively. It is very important that the framer of discourse for new literates be able to use such devices effectively or a story will lack interest and sparkle for the new reader.

A further word about beginning and end of discourse. These are largely stylicised within a given language community and need not be discussed here. One would have to be quite unobserving to not catch on to these features. However, it is not amiss to mention a possible booby trap in the way in which stories begin. If a story begins with a sentence or short paragraph in which we sketch the time and place of the story and the important participants, it may be that if such a sentence or paragraph is not carefully worded the reader will get the wrong idea as to the slant of the entire following story. Thus, in translation of a Christmas story into eastern Otomi (Mexico, data from Katherine Voightlander) the translator in the opening sentence of the discourse gave the impression that the whole point of the story was that we should pay our taxes without complaining – because Mary and Joseph went to Bethlehem to pay their taxes. In the same language there was difficulty in the translation of a story of Christ changing water to wine at the marriage in Cana of Galilee because the opening sentence mentions that there was a marriage in Cana of Galilee and Jesus' mother, Jesus, and his disciples were there. It was assumed that since a marriage was mentioned and Jesus and his mother were mentioned that he was the one getting married.

2.6 Information load in a discourse. If one is not careful he may drown the reader in new information that is given at too relentless a rate. In such a Colombian language as Tunebo (E. Headland, 1974; P. Headland and Levinsohn, 1975), we find that characteristically a story moves rather slowly. A main verb is repeated three times and various participants and props are mentioned in connection with it in the course of the repetitions of that verb. All is not given at once with one use of the verb and with all the possible participants and props hung onto it in a single clause. The rate of information flow is slower than in English and one must adjust to it in telling a story.

2.7 Function of dialogue in discourse. First of all, the incidence of dialogue varies according to discourse genre. Dialogue is common in narrative and sometimes serves to advance the event line of narrative. It is comparatively uncommon in procedural discourse. Furthermore, many times the transition from straight narration to dialogue or even from dialogue to drama serves to mark the high point of a story.

But much more may be done with dialogue in discourse than the above summary would indicate. Dialogue, although used to liven up a discourse, can also slow down the flow of the discourse. Thus, instead of simply telling what a person did we are told what he said as he prepared to do something, what he said as he did it, and perhaps even what he said as he looked back on having done it. Such elaboration is especially fitting at a high point of a story. But there is somewhat of a strategic problem as to how to mark by dialogue the high point of a story in a manner so as not to confuse the progress of the event line itself.

In two languages of Colombia this strategic problem is handled very deftly. In the Guanano language (Carolyn Waltz, 1975), the long run-on sequence sentence (a series of dependent clauses followed by one independent clause) is a very common sentence type in narrative discourse. In working dialogue into the high point of a story a dialogue may start off somewhat as 'Then Henry said to James. . .' followed by the next sentence, 'Then James answered Henry. . .' But from here on the progress of the remainder of the dialogue characteristically does not proceed in this fashion. Rather, the things that people say to each other are demoted to dependent clauses in successive sentences and the accompanying actions (on the event line) are given in the independent clause which occurs at the end of each sequence sentence: 'When James said X and Henry answered Y, then they started fighting'. In effect, therefore, the dialogue is run off the event line since it is the final clause of a sentence, the independent clause, where we characteristically find encoded a main event of a story. This amounts to having our cake and eating it too in terms of compositional strategies. Dialogue is run into the story but is run off the event line.

In Guajiro (Colombia, Mansen and Mansen, 1975), a verb auxilliary *calaca* marks the important event line of a discourse. When this auxilliary occurs with a 'he said. . .' it marks that part of a dialogue as on the main event line of a narrative; when *calaca* does not occur with the formula of quotation, then that part of the dialogue is off the main event line. Thus, a story may have two people talking to each other and a third person included in the conversation rather incidentally at one point, with a consequence that the bit involving the third person will not be marked as on the main event line; or a routine acquiescing answer may not be marked as on the main event line while the action which follows in response to a previous suggestion is marked as on the main event line.

Carol Koontz (1975) reports for Teribe (Panama) that participant dominance in a dialogue is marked by the way that the speaker and addressee are referred to in formulas of quotation so that we know immediately which speaker is dominating in a given dialogue. Levinsohn (1975b) reports something very similar for Inga.

3. *Discourse constituents.*

Discourse constituents, while more of an abstraction and creation of the analyst than the discourse itself, nevertheless have a certain psycholinguistic reality. The important thing to remember in treating such constituents is that they are subservient to the needs of discourse and ultimately are structured according to those needs. One must avoid such short-sighted folly as analysing sentences without respect to context.

3.1 Paragraph structure. A discourse is an ordered sequence of paragraphs or of embedded discourses. Typically, a discourse of any length and complexity involves minor plots and developments, so that an episode of a story will not be manifested simply by a paragraph but will be expounded by a whole embedded discourse with its own aperture, closure, and cast of participants. Nevertheless, such embedded discourses eventually break down into component paragraphs, so that in a very real sense paragraphs are the component constituents of discourse.

The reality of the paragraph as a grammatical unit is becoming increasingly established. Probably the natural unit for anaphorism is the paragraph unless the thematic participant of a paragraph continues unchanged for several paragraphs, in which case the anaphoric chain may continue as well. Nevertheless, even in such circumstances it is not infrequent to have the onset of a new paragraph marked by the repetition of a noun. In that the reintroduction of such a noun is completely unmotivated by considerations of disambiguation, we really have no way to explain the use of such an unmotivated noun in participant reference, unless we assume it marks the onset of a new grammatical unit – in this case the paragraph. Furthermore, important seams within the paragraph may be similarly marked by a re-introduction of a noun not needed for disambiguation.

A further evidence of the grammatical reality of the paragraph is the related fact that typically it has a thematic participant (in narrative) or a paragraph topic (in other sorts of discourse). The thematic participant may be marked in various ways. It may be marked simply by the physical presence of a noun and substitutes for it within the same paragraph. It may be marked by a noun phrase only loosely associated with the structure of the sentence in which it occurs and preposed to the sentence topic of that sentence. This is the situation in some Philippine languages. It may, however, be marked by a special noun affix as is not uncommon in many languages of Colombia and adjacent parts of South America. In Guajiro (Mansen and Mansen, 1975), a special auxiliary occurs with a verb whose noun subject is a paragraph topic. In terms of compositional strategies this means that a grammatical transformation must be employed to make a noun which might be other than subject of its verb the subject so it can be marked as paragraph topic.

In some highland languages of Papua New Guinea grammatical closure of the sort which we usually associate with the sentence is found at the end of the paragraph. Thus, in Fore (Scott, 1973) the paragraph terminates with an independent verb which is marked for mood. Sentences within the paragraph end with different subject verbs (distinguishing tense but not mood) or with a special suffix which marks sentence end when there is no shift of subject. Applying these criteria (distribution of distinct verb forms and affixes) to discourse of various genre one obtains a plausible dissecting of discourse into paragraphs, and sentences which are not radically different in length from those found in a text in an Indo-European language. What is striking in this situation is the grammatical closure on the paragraph level.

Paragraph units can be shown to have an internal structure not dissimilar in many ways from what we find on the sentence level. Just as we have antithetical sentences which turn on the word 'but' we have antithetical paragraphs which in English more commonly turn on a stronger conjunction such as 'however' or 'nevertheless'. Just as we have coordinate sentences we can have coordinate paragraphs. Just as we have alternative sentences which turn on the word 'or' we can have alternative paragraphs often with the second or third alternatives introduced by 'alternatively', 'on the other hand', or something of that sort. Just as we can express temporal succession or overlap within the same sentence so it may be expressed on the paragraph level as well. In fact, the division of functional load between what encodes as sentence and what encodes as paragraph appears to be a rather arbitrary in most languages.

It is desirable that the paragraph structures of a given language be classified according to a consistent taxonomy (Longacre, 1968, 1972a). The taxonomy must take account of typical conjunctions which may articulate the parts of a paragraph. In this case the conjunction goes not with the sentence on which it is found but with the whole group of sentences which it introduces. We must also take account of features such as same subject or different subject running through parts of a paragraph, or tense sequence. We must take account of the distinction between binary paragraphs versus paragraphs which are open ended or n-ary. Thus, paragraphs which express result or reason are typically binary paragraphs, as also are paragraphs which express opposition or antithesis of some variety but paragraphs which encode temporal succession are essentially open ended as are also coordinate paragraphs. In grouping together the various features which distinguish one paragraph type as against another, information is gained as to the structure of well formed paragraphs, and guidelines are established for use in composition. Attention to such details will assure us that material for new literates is cast into paragraphs of well formed structure which may be read without undue difficulty.

Furthermore, it is not unusual to find some sort of paragraph peak as well as discourse peak – although discourse peak is marked more elaborately than paragraph peak. Nevertheless, some simple device may be used to indicate that we are reaching the high point of a paragraph. In Inga (Levinsohn, 1975b) this device consists in the occurrence of back reference. In a few languages it may even be a special affix or particle. There are English narrative paragraphs where the use of such a word as 'finally' serves this function.

It is important that the function of every paragraph type be evaluated relative to the total discourse structure. What does a paragraph type *do* in discourse? Is it most commonly a device for giving background information? Or is it a paragraph type used for mainline backbone development of a discourse? Is it (as in, e.g. the case of a simultaneous paragraph) a device for bringing together a subordinate event line with a main event line: 'John parried the questions of the police as best he could. Meanwhile, Mary continued her slow progress from store to store'.

3.2 Sentence structure. I have in mind here not relations such as verb, subject, object, and similar elements but rather the combining of clauses into larger units. This unit characteristically has phonological as well as grammatical closure – although it is not infrequent in the world's languages to find that the phonological sentence (a unit bounded with intonational break or pause) is not always in one-to-one correspondence with the grammatical sentence. Within the sentence unit we expect a certain internal dependency of parts – either of subordinate clauses which are dependent on a main clause or of main clauses conjoined by conjunction. A variation of the latter is absence of conjunction but presence of some phonological feature which unifies the whole.

In English (Longacre, 1971) the core of the sentence system turns on the words 'and', 'but', and 'or' which characterise respectively coordinate, antithetical, and alternative sentences. The conjunctions 'for' and 'so' figure in reason and result sentences respectively. Conditional and contrafactual sentences involve an 'if' on the front and some kind of further medial signal. Contrafactual sentences have a peculiar tense dependency of the two parts and involve a kind of double talk, English also has quotation sentences and juxtaposed sentences (without conjunction) which express things such as paraphrase ('he's a monster, he's a brute') and recapitulation ('I went home, I went home to see what was really going on'). English, unlike some languages, does not have special sentence types to express sequence and simultaneity. Within highland Papua New Guinea, however, we may say that temporal relations such as succession versus overlap constitute an organising principle of sentence structure.

It is not uncommon in certain parts of the world (Papua New Guinea, South America, and certain Indian languages of the United States) to mark on a subordinate or non-final clause whether it will have the same or different subject from the following clause. Different structures are found here in different parts of the world. In Papua New Guinea the marking of same versus different subject is relative to whatever clause follows. In South America the marking of same versus different subject is relative to the independent clause which dominates the entire sentence.

Again we must ask ourselves: what is a given sentence type *doing* within the greater unity of the discourse? Granted the fact that a given semantic notion may be encoded in several different ways how does it come about that in this particular part of a discourse we find a certain surface structure sentence pattern emerging rather than another? For Guanano (data from Nate Waltz) the sequence sentence has a very clear discourse level function in condensing and summarising. All the information given in the non-final base of a sequence sentence with its terminating independent clause could have been expressed as a series of simple sentences, each with its grammatically independent clause. But where the information given in the structure is essentially old information (already given in previous portions of the discourse) it can be condensed and packed into the non-final clauses of a sequence sentence. The sequence sentence also forms a function of giving background or supplementary information or reporting ancillary actions which are not as important as the action which is encoded in the independent clause at the end of the sequence sentence. In this way the backbone of a discourse can be distinguished from less important parts. This is especially striking in the use of dialogue in Guanano (cf. 2.7 above).

A question arising when anyone has studied paragraph versus sentence structure is the simple question: When does one encode a series of actions or observations as one long sentence and when does one encode them as a series of short sentences, since this option usually exists within a given language? Is this haphazard or capricious? This is especially pressing to the preparer of literacy materials who is often counselled that he should keep the sentences short. Actually the consistent use of short sentences may result in an artificial dialect which is a far cry from the way that people actually talk, tell a story, or write an essay. As mentioned above, a long sentence sometimes has a special function in marking peak of a discourse. At any rate evidence increasingly is piling up that use of sentence versus paragraph is not a haphazard Montecarlo sort of choice, but is dictated by constraints on the structure of the whole discourse.

3.3 Role and clause structure. The recent popularity of case grammar has underlined the necessity of understanding the situational roles in which people are involved in a clause as well as the more stylicized marking of subject, object, predicate, and similar relationships. It has been argued forcefully that we need a split level structure here. We need to consider the semantic roles which nouns play relative to the verb of a clause. We need also to consider the surface structure slots (subject, predicate, object, etc.) which are marked in some way, whether by word order, case markings, or what have you. Here again, however, we must know the structure of a given language and not impose on it that of an outside language. Thus, English is capable of saying in the same clause 'John carried the basket from the kitchen through the dining room into the living room' but in many languages this would have to be expressed as three separate clauses: 'John picked up the basket in the kitchen. He carried it through the dining room. He arrived with it in the living room'. English has ways of referring to meteorological conditions in which 'it' is used as a dummy word for weather, climate, day, temporary conditions, etc.: 'it's raining', 'it's snowing', 'it's sunny', 'it's hot'. In Korean (Shin Ja Hwang, 1974) we must in every case use some noun expressing weather, climate, day, or something of this sort. In English we can say 'I smell onions' or 'I hear the tiger' but in Korean it is necessary to say 'I smell the odour of onions' or 'I hear the sound of a tiger'. In Korean it is necessary to express the source of the odour or of the sound. In these and in many other ways we can expect differences in the structure of role as related to surface structure clauses; and we may expect to express the same thing in two or three clauses in one language and possibly all in one clause in a different language.

One thing is certain, however. Once the verbs of a language have been classified carefully as to their potential for occurring with various constellations of nouns in given roles and once we have arranged these into a coherent system (cf. Longacre, 1976; Ch. 2) we will find that any discourse in that language chooses for its backbone structure a set of verbs which are semantically related and which tend to fall out in neighbouring cells of a chart which systematizes predication types in that language. The structure of a given discourse calls up a limited set of verbs from limited semantic domains which carry the backbone structure of that discourse. This picture is of course hopelessly obscured if we confuse backbone material with background material.

3.4 Morphological features. As I have hinted all through the above discussion of discourse, sentence, paragraph, and clause there may be morphological marking of elements anywhere on these various levels. It is not uncommon in the analysis of a language to find certain 'leftover' particles or affixes which an informant finds very difficult to translate and yet which he insists he wants used at certain places in the discourse. Unless the function of these particles or affixes is understood a lot may escape us. Typically, such morphemes have a discourse or paragraph level function. They may be marking the thematic participant of a paragraph. They may be marking important events. They may be marking role reversal. They may be marking the participant next in importance to the thematic participant.

Ultimately, one cannot use with complete assurance any inflected form, nominal or verbal, without knowledge of the discourse structure. Linda Howard (1974) illustrates this for Camsa (Colombia), a language with very extensive verbal affixation and many tense-mood distinctions. She presents a tree diagram to summarize the relation of tense-mood distinctions to paragraph and discourse types. Thus, one tense is characteristic of the backbone of narrative discourse, another tense of background material, and still another tense of flashback in narrative. Similar distinctions characterize the main events in a paragraph versus paragraph setting (a kind of background). Ultimately, extending this device to various discourse and paragraph types one could devise a rather complete guide to usage of the bewildering variety of Camsa verb forms.

4. *What then?*

Preparation of literacy textbooks and reading for new literates requires an overarching knowledge of discourse structure. One must know the rules for composition of discourses of various genres and weigh the relative merits of the use of various sorts of discourses in the materials. One must control such features as participant reference, backbone versus background, linkage and flow, marking of beginning, end, and peak, information load, and function of dialogue. Discourse constituents, i.e. paragraph, sentence, clause, and other units down to word structure must be properly formed and used as required by the design of the whole. The new reader will find materials prepared according to such specifications to be meaningful, in line with his expectancies (instead of a source of blockage and frustration), and pleasing. He will be able to identify with what he reads as being, in every sense of the word, his language.

Notes

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[2] cf. 3.1. An episode of a discourse is sometimes expounded by an embedded discourse with its own cast of major and minor participants.

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Literacy and Language Development

Francis X. Karam

This discussion enumerates some recent findings of sociolinguistics concerning literacy as a component of language development. Both literacy and language development are largely dependent upon a society's prevailing system of communication. Although the influence of non-written communication has increased in recent years, the ability to read and write remains vital to individual and community development; it also inherently possesses some unique capabilities.

Literacy is commonly referred to as a person's ability to read and write. In pre-industrial England the two skills were identified separately with reading given the higher priority (Schofield, 1968). Reading aloud was the custom for centuries, with silent reading only occurring subsequent to the advent of printing (Goody and Watt, 1968). Today, reading and writing are taught together, although emphasis varies; i.e., 'phonics' aims at reading as a means to writing. In Ethopia the people traditionally have been taught to read but not to write; however, today both skills are taught (Ferguson, 'Personal Communication', 1970). In percent years literacy experts have come to define the literate person in functional terms: 'A person is literate when he has acquired the essential knowledge and skills which enable him to engage in all those activities in which literacy is required for effective functioning in his group and community, and whose attainments in reading, writing and arithmetic make it possible for him to continue to use these skills towards his own and the community's development' (UNESCO 1965 : 7)[2] However, Gudschinsky (1973 : 6) notes that functional definitions of literacy do not apply to pre-literate peoples who acquire literacy, because they do not need to be literate in order to function within their community.[3] Hayes (1965 : 26) succinctly rephrases the above definition as a person learning to read until he can read to learn. In discussions of historical literacy, however, definitions are problematic; they usually are non-functional, tending to reflect a capability below that of the functionally literate (Schofield, 1968). For example, one finds reference to an illiterate as a person who is unable to sign his name for marriage records. (Cipolla, 1969 : 11–5).

The acquisition of literacy throughout a society is dependent upon the direction of development of that society's language. In this regard Ferguson (1968) provides a threefold definition of language development which serves as a useful framework for such considerations; namely, graphisation (the reduction of a language to writing), standardisation (the development of a norm which over-rides regional and social dialects), and modernisation (the development of intertranslatability with other languages in a range of topics characteristic of the more industrialised societies). A people obviously cannot become literate if its language has never been written (graphisation). And a people that wants to advance itself, typically, strives for linguistic unity (standardisation) and access to technological and humanistic literature (modernisation).

A literate society has two linguistic mediums, the spoken and the written, which function in part independently and in part interactively (Bloomfield, 1933 : 291–2; Ferguson, 1968 : 29; Haugen, 1966 : 929–30, 1966a; Vachek, 1973). In order to clarify the nature of the spoken language of face-to-face contact versus the printed language some aural-visual contrasts are here presented; transmitted speech is not considered.[4] Generally, visual impressions tend to be more lasting than aural impressions (Carroll, 1966 : 104–5). The top speed of reading aloud is approximately between 300–350 words per minute; the top speed of silent reading is almost three times as high. The hearer edits the spoken message by filtering out the hesitations, repetitions, false-starts, back-tracking, and even by adding what is not there. Speech tends to ramble in a relatively unorganised, redundant, and iterative fashion whereas print tends to be organised, less redundant, and non-discursive. The sounds of speech are received in sequence with the listener being unable to regulate the rate of reception or to go back and review what was uttered. In speech the speaker is usually heard for only a few moments. In writing the reader can look at the message for as long as he wishes; he can see more things at a time than he can hear, and he can deal more effectively with complex matters visually than aurally. Speech tends to be more casual and idiomatic than print, which tends to use semi-formal rather than casual lexical and grammatical forms. Conventions of print develop in part independently from those of speech; they are more rapidly standardised and then actually influence the standardisation of speech. Speech is basically two-way communication while print is one-way communication; being a two-way system, speech has the immediate corrective of feedback from listeners whereas print lacks such a corrective and requires the writer to anticipate the reader's needs in this regard. Speech is limited to face-to-face contact and is immediate communication; while print lacks the face-to-face feature, it can transcend the limitations of time and space, but it is delayed communication. Although the written language may be popularly held to be more authoritative than speech,[5] face-to-face contact may be more influential in changing attitudes.[6] Speech tends to be more susceptible to change than print, which tends to be more conservative, with deviation resulting between the two forms over an extended period of time. Print may not influence all speech forms, only word meaning, lexis, and syntax. And some forms of spoken discourse are specifically written to be read aloud. Pulgram (1965 : 224) comments that the basic difference between speech and print may ultimately derive from the innate diversity of man's aural and visual physiological make-up and behaviour.

Because of the nature of the printed language (i.e. multiple copies of the same message) a widely literate society is, in fact, a mass media society. Media scholars generally look upon mass communications as the transmission and reception of identical aural and visual messages.[7] There is the tendency on the part of many to think that a literate-media community is restricted to an industrialised society, as a glance at the historical development of literacy in the West seems to indicate; however, a most notable exception is the case of ancient Greece (Cipolla, 1969; Goad, 1958: 32–53; Goody and Watt, 1968). Duplicate aural messages were provided by public pronouncements, political orations, and by the theatrical productions whereby the citizenry was continually exposed to models of usage and pronunciation; duplicate visual messages were provided by numerous hand-copied manuscripts, partly made possible by the importation of papyrus from Egypt which was less expensive than parchment. The high degree of literacy in ancient Greece, like that of Western nations centuries later, was a counter-part of its urban culture and of its outstanding achievements in political government, science, philosophy, the arts, and education.

The advance of literacy in the West parallels, to a large extent, the advance of the vernaculars into written, standard languages which eventually displaced Latin as vehicles of scientific and humanistic expression.[8] A literary language is here referred to as a language for which the written or printed character has become standardised in such a way that the spelling of words and the lexical and grammatical forms are well established and must be used for written records (Bloomfield, 1933: 291). When a language is first used in writing there is the strong tendency to use the written language as an aid to memory and to preserving the oral tradition in the representation of formal, non-casual speech such as that used in religious ceremonies and formal speech-making, and it is used only later for the representation of informal, casual speech such as in personal correspondence (Ferguson, 1968: 30; Gelb, 1963: 241; Goody and Watt, 1968: 40). The early use of writing is also usually based on a particular dialect as opposed to other dialects, with the consequence that the various dialect communities use the same written language but pronounce it differently, according to the sound features of their local dialect. Speakers of these other dialects are usually at a disadvantage in learning the written language because of the sound/spelling divergence caused by their differing pronunciations; however, after some familiarisation they often acquire an amazing facility in its use (Nida, 1963: 26).[9] The development of literary languages in the West spanned many centuries and was the counter-part of many such historical changes as the rise of the cities and of universities; the growth of trade and of the middle class; the invention of printing, which was very important for the use of the vernaculars (Jones, 1966: 32); the Renaissance, with its revival of classical learning and literature; the Reformation, and the consequent spread of literacy through the emphasis on making religious works accessible in the vernacular; the rise of acclaimed writers of literature who reinforced the position of one dialect over others as the standard; and the rise of standardizing languages as either religious or nationalistic symbols (Ferguson, 1968; Haugen, 1966; Martinet, 1954; Vendryes, 1931: 260–79). As the pace of oral and written communication gradually increased so too did the need for a uniformity of code (Haugen, 1962: 152). The written vernacular came to serve as the common language of the larger heterogeneous and multidialectal society, especially as a notable literature was written into it and as it increasingly was used in the law courts, in commerce, in religious services, in education, in official communication, and in mass communications (Jespersen, 1964: 33–73).[10] In the sixteenth century as the common language grew in stature significant works of learning and literature were translated into it from Greek and Latin, much as similar works are being translated into many of the contemporary newly developing languages from the world's major languages (Ferguson's modernisation; Adisjahbana, 1971; Ward, 1947). Writing about the course of language development in Germany since 1800, Kloss (1952) observes a scale of progression in the use of language ranging from folklore and humour to its use by lyric writers and prose narrators, its subsequent use in serious expository prose (which is a critical phase in its development), followed by its use in technical, scientific, and governmental use. Havránek (Garvin, 1959; Garvin and Mathiot, 1960; see also Garvin, 1973) refers to a three-step scale of intellectualisation for standardising a language which consists of conversational, workaday technical, and scientific functional levels. The sustained growth and development of a contemporary common language is to a large degree dependent upon the amount of reading material available and upon the spread of literacy and education (Alisjahbana, 1953: 102; 1971: 1104). More recently, literacy has been recognised as a concomitant to industrialisation in Western Europe and in the United States (Cipolla, 1969: 62–99; Hayes, 1960: 86), with the result that literacy programmes for developing nations are looked upon not as isolated efforts but as being integral to other national development programmes (Curle, 1964; Hayes, 1965; Schramm, 1964; UNESCO, 1965).[11] However, the typical growth profile of a common language in the West – involving literacy and education – may not be considered by some to be critical in certain areas of national development due to the widespread use of inexpensive transistor radio receivers; some even speculate that a new era of oral literature will emerge (Garvin, 1973a: 31–2; Martinet, 1966: 154).

The preceding historical sketch illustrates that literacy is both a component and a product of language development. In retrospect one may say that Western society's method of communication has moved from a preliterate to a literate stage, to an industrial media stage, to a post-industrial electronic stage.[12] In the first stage there is wholly face-to-face oral communication; in the second stage the majority of the language community additionally can read and write; in the third stage there is additionally the transmission of messages through telegraph and telephone, and through the mass media of the press, radio, and motion pictures; in the last stage there is additionally the aural-visual imagery medium of television, plus the transmission of both media and non-media messages (with the latter including not only telegraph and telephone but also computer data and facsimile) through communications satellites.[13] Some developing countries today may be experiencing some or all of these stages simultaneously.

In spite of the new era of electronic communications, literacy remains very important because it enables an individual to read what others have written and thereby to tap the vast treasure-house of mankind's accumulated knowledge, or at least that part of it which exists in the language(s) through which he can gain access to it. Literacy remains important because it enables one to express one's thoughts in writing and thereby to achieve a degree of clarity and order which one could not achieve otherwise. Miller (1972) even goes so far as to attribute the invention of formal logic to the written form of language (see also Goody and Watt, 1968: 52–5). And most scholars agree that the invention of writing was indispensable for man to make the transition from primitive to advanced civilisation. Literacy remains important because it enables an individual to overcome the limitations of distance and to communicate through writing (and reading) with others who are many, even several thousand, miles away. Literacy remains important because it may contribute significantly to the attainment of mutual intelligibility between speakers of related language varieties, thereby expediting the achievement of language unity (Ferguson's standardisation), which in turn facilitates community development and nation-building. This contribution of literacy is possible because, in certain situations, the written language tends to yield more information for mutual understanding than does the spoken. For example, Gleason (1961: 425) writes that, due to the sharp differences among their dialects, various speakers of German are able to communicate with one another only through their common literary language (see also Leopold, 1959; Twaddell, 1959). A literary language may also facilitate mutual intelligibility between literate speakers of related languages with impaired mutual intelligibility. For example, if a Frenchman, an Italian, and a Spaniard had never heard each other's language before and suddenly found themselves in a situation needing to communicate with one another, it is highly probable that they would have a fair amount of difficulty understanding one another. Assuming the speakers had adequate motivation, their difficulties would be eased considerably if they had before them a text of the topic written in the three languages.[14] Such a text would reveal the many similarities between the three languages, due to their having derived from Latin, which may not be so obvious from the aural point of view.[15] And Kloss' (1967: 36–7, 41, n. 8) principle of recognisable similarity of speech is also here applicable to the written language. (Briefly stated, his point is that even though speakers of distantly related languages may be mutually unintelligible they probably always recognise an overall similarity between their respective speech codes.) Lastly, literacy remains important because it may provide language planning agencies, in certain situations, with the very flexible tool of handwriting for the initiation, modification, or merging of orthographies.[16] For many orthographies the characters of the handwritten script are quite different from the characters of print. Consequently the characters of the former may be changed without having to change the characters of the latter. One advantage of modifying handwritten script is that, unlike the technology of the press, such modifications are free of cost factors which might make their use prohibitive.

This brief summary of recent sociolinguistic findings suggests a framework of language development which may be suitable for investigating some aspects of literacy. Various historical relationships between literacy and language development were indicated to demonstrate the value of such a framework. While areas such as these and others were covered, whole ranges of problems, like literacy and the media or planning for literacy programmes, were not covered. Nevertheless, such a summary helps to review what is known and, by implication, to indicate what areas merit further discussion and research.

Notes

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[2] This definition is circular.

[3] Gudschinsky (1973: 5) defines a literate person as one 'who, in a language he speaks, can read and understand anything he would have understood if it had been spoken to him; and who can write, so that it can be read, anything that he can say.'

[4] The characteristics enumerated here are, for the most part, taken from the works of Bloomfield (1933), Bolinger (1946), Bradley (1913–1914), Ferguson (1968), Francis (1963), Gelb (1966), Haugen (1966a), Hertzler (1965), Lepschy (1970), Martinet (1966), Quirk (1955), Reinecke (1936), Saussure (1959), Schramm (1954), Sturtevant (1961), and Wardhaugh (1970).

[5] Any question concerning such matters as birth, marriage, military service, business contracts, and the spelling and definition of words is usually resolved by consulting the written word and not by hearsay.

[6] Klapper (1954: 104) reports that face-to-face dialogue is more persuasive than is transmitted voice, which in turn is more effective than print.

[7] For pertinent research articles of the past twenty-five years on mass communications see Schramm (1954) and Schramm and Roberts (1971).

[8] For an account of the English language in this regard see Jones (1966).

[9] It is unfortunate that at a conference held in 1971 to discuss the relationship between speech and reading no consideration was given to the problem of learning the literary dialect by speakers of other dialects (Miller, 1972).

[10] An unusual situation persisted until recently in the Somali Republic. In this country nearly all the population speak the same language, Somali, but this language had no official orthography and all writing and printing was done in either Arabic, Italian, or English, none of which is universally known (Andrzejewski, 1962).

[11] Perkins (1966: 612–5) writes that without literacy a newly-developing society would be unlikely to progress beyond the most preliminary stages of development.

[12] Sjoberg (1964: 892) identifies three types of society: preliterate, pre-industrial civilised, and industrial. A preliterate society has no writing system; a pre-industrial civilised society has a writing system but one known only by a small urban upper class; an industrial society has mass literacy.

The term post-industrial society is commonly used for those more developed nations of the world which, since World War II, appear to be entering a new phase of sustained economic growth (Kahn and Weiner, 1967). One of the major features of post-industrial society is the rapidly accelerating technology of electronics (Handel, 1967) that has contributed to a new multi-disciplinary study of communication (Cherry, 1966; Pierce, 1972; Smith, 1966; Wiener, 1950).

[13] For information on the current and projected status of communications satellite technology see COMSAT (1974); for a discussion of its possible future impact on society see Clarke (1971) and UNESCO (1968).

[14] A pedagogical comparative grammar of French, Spanish, and Italian illustrates the possibility of learning one language when another is already known, or of learning all three languages simultaneously (Heatwole, 1949).

[15] Variance between the spoken and written form of language is especially obvious in the case of French, as many of the sound changes which have occurred in that language are not reflected in the spelling. As Martinet (1966) notes, the differences between the spoken and written forms in French are of such a magnitude that it is no exaggeration to say that the structure of the spoken language cannot be identified with that of the written. The written language also may reveal many borrowings from other languages which may not be so obvious aurally. For example, written French is more intelligible to English speakers than is the spoken form because it reveals the many lexical borrowings from French that are in English. Regarding the differences between spoken and written English see Hall (1961).

[16] For a discussion of some problems, both linguistic and non-linguistic, encountered in the establishment or modification of orthographies see Berry (1958), Fishman (forthcoming), Garvin (1954), and Smalley (1963).

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Part II

The Development of Literacy in the Soviet Union*

E. Glyn Lewis

Introduction

Fundamental to a consideration of literacy in the Soviet Union is its multinational and multilingual character, as well as the régime's insistence on the pursuit of a bilingual policy in all significant areas of administration and education. The summary account of the Census of 1970[1] provides detailed information concerning 92 languages, though over 122 national languages were recognised for Census purposes.[2] Of the language groups indigenous to the Soviet Union the largest are Indo-European, including members of the East Slavic group (Russian, Ukrainian, Belorussian, etc.), Baltic Languages (Lithuanian and Latvian), Iranian (Tadzhik, Ossetian, Kurdish, Talysh, Tat, etc.), Armenian and Moldavian. Altaic languages represent a second main family and this includes Turkic languages such as Uzbek, Azerbaydzhan, Turkmen, Kirgiz, Kazakh, Uygur, Karakalpak, Chuvash, Kumyk and Bashkir. A second sub-group of Altaic languages, Mongolian, includes Buryat and Kalmyk while the third, the Tunisic sub group, contains Tungus, Evenki, Even, Nanai, etc. The many languages spoken in the Caucusus constitute a third major family, the most important member of which is Georgian. The Caucasian group has three sub-groups – the North West (Abkhaz-Adygei), North East (Chechen-Ingush), and South (Kartveli, to which Georgian belongs). A fourth major family of languages is the Uralian, which includes Finno-Ugrian languages (Estonian, Finnish, Karelian, Komi, Permyak, Khanti, etc.) and Samoyedic (including the languages of the Far North, such as Nenets, Taugi, etc.) Finally there is a collection of Paleoasiatic languages which do not constitute a homogenous group of family and which include Chukchi, Koryak, Itel'men, Nivkh, etc.

The numbers speaking this great variety of languages range from 130 millions (Russian) and 40 millions (Ukrainian) to one thousand and fewer (Taugi and Yukagir). Apart from Russian and Ukrainian, twenty-three languages are spoken by between 1 million and 10 million each; 28 languages by between 100 thousand and a million; while 14 languages are spoken by fewer than ten thousand.[3] Apart from their size the groups speaking these languages at the beginning of the Soviet régime differed in almost every conceivable way. There were vast differences in economic development especially between European and Asiatic Soviet peoples; differences in social structure between those which had only recently emerged from a tribal state and those which had a long history of national existence; differences in education and in the nature of the support for education – religious among the Muslims, secular in the main elsewhere; differences in religious affiliation, in Christian, Muslim or Jew; differences in political and cultural traditions, in the values and in norms of public behaviour, in patterns of family life and basic psychological constitutions. Finally, the languages spoken by them were at very different stages of development.[4]

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With such large numbers of languages and associated ethnic groups it is not surprising that the régime was intent on pursuing a bilingual policy (*dva potoka*) from the beginning. To all intents and purposes so far as administration and public education are concerned this involves the teaching and the use of one or other of the national languages together with the *lingua franca*, Russian. 'The aim is to make the Soviet regime . . . not merely Russian but also multinational. Therefore it is necessary that not only the schools but also all institutions should operate in the language of the masses . . . and function in conditions appropriate to the way of life of a given people.'[5] This policy was formulated in the resolutions of the 1921 Congress of the Party – 'To develop their Soviet statehood . . . To consolidate and develop in the native language courts of law, economic bodies etc. . . . composed of local people . . . To develop the press, theatre, clubs and educational establishments generally in the native tongue . . . To establish and develop a wide network of courses and schools in the native language.' At the same time, because of the need for a common language for international communication within the Soviet Union a *lingua franca* was necessary. Russian selected itself for this purpose partly because of the fact that the majority of the population of the USSR already spoke it, partly because it was a language of world communication, but also because it was the language of Soviet politics and the Marxist ideology. For these reasons Russian, though not a 'state' language is taught in all schools, usually from the second grade, often from the first grade and sometimes used as the language of instruction of non-native speakers of the language. Quite considerable segments of the populations of Union Republics and smaller administrative areas are bilingual in two or more non-Russian languages – Belorussia has 7.3%, Armenia 6.0%, Tadzhik 12.0%, Lezgin 22.3%, Kurds 36.2%, Taugi 31.0%.[6] In addition much higher percentages are able to speak Russian as a second language irrespective of whether they are bilingual in the other sense, e.g. Tatar 62.0%, Chuvash 58.0%, Latvian 45.0%, Kumyk 57.0%, etc. There are only seven ethnic groups where the percentage claiming to be able to speak Russian as an auxiliary language is below 20%, namely Uzbek, Azerbaydzhan, Jews, Kirgiz, Turkmen, Tsakhur and Karakalpak.[7]

Because of the diversity we have outlined any account of the development of literacy in the Soviet Union must take account of several dimensions. First, there is the cultivation of an individual language and the planning which is involved, as it might be a single language in a developing monolingual nation – simple literacy. Second, there is the overall level of the Soviet literacy, the languages involved – quantitative literacy. Third, some language groups started their literacy campaigns from zero and others from very low levels, but having progressed at very different rates they have achieved comparable levels with the most literate groups. This is the differentiated growth of literacy. Fourth, a consideration of literacy in the Soviet Union must take into account the question of whether literacy involves the first or the second language or both – bilingual literacy. Finally, because of bilingual literacy, whether as an individual or societal phenomenon, any analysis of literacy in the Soviet Union has to give an account of the relationship of the two categories – the national languages and the *lingua franca* – as they are *used* and not simply as they are known – differentiated functional literacy.

The nature of the social functions of the languages cannot but influence their structures, phonological and lexical features profoundly. For these reasons a distinction should be made between the numerical or quantitative aspects of Soviet literacy on the one hand, the level at which there is at least minimum possession of a skill or competence, and on the other the qualitative or functional aspects – the degree to which those who possess these skills are assured of a range of opportunities to employ them. There is a distinction to be made between competence and performance in literacy as elsewhere in linguistics and this distinction is vital in a multilingual society. Consequently the present treatment of Soviet literacy will attempt to analyse and to assess not only the overall but also the differentiated levels of literacy, the bases, social and linguistic, on which such literacy has been built, and the agencies of its promotion. Finally the effect of multilingualism on the relationship of the languages in terms both of their linguistic characteristics and changes in social roles, together with the consequent pattern of uses to which bilingual literacy is put will be outlined.

The Bases of Literacy

(a) National Development

The growth of universal literacy in the Soviet Union, and possibly elsewhere requires the satisfaction of three preconditions: first, the promotion of socio-economic conditions which ensure that the work of linguists and educationists may have an effective outcome. Second is the linguistic work itself which ensures that the most appropriate vehicle for literacy is produced and which reflects the overall national linguistic configuration. Third, there have to be agencies whereby the languages are made known in the form which has been decided, to as many of the 'national' populations as possible. In its first phase the development of universal literacy is an aspect of social change. It is necessary to insist on this fact because within the Soviet Union the discussion of the specifically linguistic aspects of literacy has a preponderantly sociological orientation. The possibility of universal as opposed to élitist or class literacy depends on the development of 'national' as distinct from what is termed 'folk' language.[8] The fundamental characteristic of a developed national language compared with a folk language is that it is 'a single standardised literary language (a common national literary norm, which is shared by the entire nation, which functions in all aspects of communication and which was formed from a folk base'.[9] The existence of folk language does not necessarily rule out a written literary language. But a distinctive feature of such a literary folk language, if it exists, is the limitation of its currency to a very select group. Literacy requires a national language which is defined as 'exemplifying the most highly developed, stable and socially acceptable linguistic norms'.[10] It emerges only at certain points in the history of a people namely the 'stage of nationality formation and development and the stage of national formation and development'.[11] For universal literacy to be possible therefore the full potential of the nation must have been or be in process of mobilization: 'a national language is formed when it becomes a unified common national language for the whole society'.[12]

Limited, élitist or class literacy may emerge prior to national development and we cannot ignore the efforts that were made prior to the Soviet régime but these efforts were doomed because they were not able to take advantage of fully mobilised nations. For instance as early as 1802 the Tsarist administration of education gave two of its six Commissioners of education responsibility for the education of national minorities. By the fourth quarter of the nineteenth century the system of education was organised into 15 districts with varying ethnic and linguistic patterns including five Asian, Turkestan and Amur Pacific coastal areas. In 1869 The Minister of Education, D. Tolstoy appointed Ilya Ulyanov, Lenin's father, as school inspector for the multi-ethnic province of Simbirsk in the educational district of Kazan. He introduced native languages as media of instruction into very many of the 450 schools.[13] But such schools catered for relatively few children, and whatever the level of standardisation of any of those languages the opportunity of using them as bases of literacy was extremely restricted.

Modernisation (of which the social and political mobilisation is one aspect) is therefore a prerequisite of universal literacy. Though, naturally enough, Soviet linguists accept this postulate they identify modernisation with the development of socialism. Thus they argue, 'the development of national languages (and therefore literacy) in socialist and capitalist societies is very different.'[14] The process of ensuring a national base for literacy reflecting unified literary norms by means of press, radio and educational institutions, it is claimed 'is most intense in socialist countries'. In fact however both the development of a unified literary medium and a particular system of society are independent though parallel developments in a process of modernisation. Contrary to the claims of Soviet linguists universal literacy has nothing to do with socialism as such.

It is necessary to stress the dependence of the development of literacy on the processes of modernization because three aspects of the growth of 'national' as distinct from 'folk' or 'nationality' literacy reflect the intensification of modernization. For instance, it is not surprising that there has been such phenomenal growth of literacy when we remember the equally rapid growth of urbanisation, especially in the Central Asian areas. Related to this fact is the choice of urban dialects or urban groups of sub-dialects as the bases of national languages, as we shall have occasion to note later in the case of Uzbek. Urbanisation is also a factor in the improvement of the channels of literacy, the most important being the schools. The positive correlation of increasing literacy and urbanisation is not coincidental, partly because the standard of education in rural schools does not compare favourably with the standard in urban schools. It was reported in 1973 that while the rural schools of Kazakhstan cater for 50% of the child population the education given them in those schools 'does not come up to contemporary requirements'. Similar comments have been made about most of the other Republics.[15]

Second, literacy in the Soviet Union reflects the scientific, technical and secular aspects of modernisation. The work of early promoters of literacy such as Ilminsky was related to the demands of religion. Although he was Professor of Languages at Kazan Theological Academy, Ilminsky was first and foremost a missionary who strove to make the Gospels known to the uneducated Chuvash, Mari, Udmurt and others. Again, slowness in introducing the Latin alphabet in Turkic countries was explained by the Chairman of the All Union Committee for the new Turkic Alphabet (VTsKNTA) as being due to the religious associations of Arabic, which made a decision to learn a new alphabet tantamount to an affront to Islam and a sin before God.[16] For the Soviet régime, however, literacy is important 'because it is part and parcel of the work of the Communist Party'.[17] Literacy opens the way to an understanding of Marxism. Lenin maintained 'an illiterate person is outside politics and he has to be taught his ABC. Without this there can be no politics.'[18]

(b) Language Planning – code selection

Social and economic development, by ensuring that the results of planning have a reasonable promise of being implemented nationally and of being effective, can only lay the foundations of the promotion of literacy. The linguistic analysis has been very intensively pursued in the Soviet Union since the early days of the regime, and some of the descriptions of languages have been made available for the first time. Such studies are complicated by the dialectal patterns of large numbers of Soviet languages. For instance before the stabilisation of Khakass there existed only several separate spoken dialects – Beltir, Sagay, Kachin, Koybal and Kyzyl. The choice of Sagay-Kachin as the base of literacy and school instruction was dependent on field studies – work involving several dialects.[19]

Uzbek is a good example of the problems facing language planners in the initial stages of the regime. Its dialects, classified according to their locale include Central Uzbek from around Tashkent, together with a variant spoken in Samarkand and its environs, another group of dialects spoken in the Ferghana Valley, which are in close contact with dialects of the Andizhan area. Then there are the North Uzbek dialects spoken around Chimkent and north of Tashkent, as well as in the southern areas of Kazakhstan. There are also the Kazakh dialects of Uzbek, and finally the Turkmenised variants spoken in the area surrounding Khiva. This distribution of Uzbek dialects has to be explained in terms of the ethnic processes under which the Uzbek nation was formed. Certain local dialects have retained clear traces of linguistic interaction between members of various Turkic groups during different periods of their coexistence. Individual dialects retain pronounced phonetic, lexical and grammatical differences and the distribution of these features does not always coincide with the geographical distribution of the dialects.

Tadzhik is usually regarded as possessing at least five groups of dialects of which the North Western, spoken west of Ferghana near Samarkand and Bukhara is the best known. Its most northerly variant is spoken north east of Tashkent. The second group, the South West, are spoken by the Mountain Tadzhiks of the Badakhshan-Goron area. Farsi, the Central Asian form of Persian, and the Yagnobi dialects are two other groups and there is a collection of dialects spoken by Beludzhi, Kurds and Afghans on the frontiers. The standard literary Tadzhik is based on the North Western variant.

There are at least three approaches to language planning. The first approach is, realistically perhaps, to be content to allow languages to die, or, the more extreme exemplification of the same attitude, actually creates conditions leading to the extinction of a language. Examples of languages to which the approach of the planners is at least only neutral are, first, the Buduck and Khinalug languages spoken in Azerbaydzhan by 3,000 and 1,000 people respectively. The two languages are gradually becoming extinct, their place being taken by Azerbaydzhan. The Batsbi language occupies a similar position. It is spoken in only one village in the Georgian Republic, Zemo-Alvani, and Georgian is gradually assuming the role of native language for nearly all the inhabitants. The second approach is negative or at least highly critical and subversive of the norms of an existing 'literary' language. Many of the languages of the Soviet Union possessed such historical literary languages but many 'of the old literary languages were based on mediaeval dialects remote from the living spoken language of the people.'[20] Consequently one of the priorities of the linguists was to attack the artificial literary norms: 'one characteristic feature which is invariably present in such controversies (with regard to the creation of a national language) – the object of attack has always been the written literary language, characterised as reactionary and feudal'.[21] In Uzbek, for instance, there had been an attempt to create an artificial literary language based on the old book-language which was wedded to the use of Arabic and Persian.[22] Part of the efforts of the Soviet linguists was to eliminate Persian lexical, phonological and grammatical elements in Uzbek.[23] The development of the eastern variant of the Armenian national literary language, also facilitated by such critical approaches, first of all to Grabar which, because it was in the early periods restricted to the Church, became a cult language and ceased to be intelligible to the mass of people. Out of this critical phase grew 'Ashkharhabar' (lay language) which was well defined by the fourteenth century and was still current in the nineteenth century. It too, in turn, underwent a vigorous critical appraisal and in consequence the grammar of the new literary language which emerged after the 1880s was purged of dialect forms; its lexicon was 'purified' of more recent Arabic, Turkish and Persian importations. The same processes were promoted in the case of the west Armenian literary language.

The third approach to the selection of a code and its stabilisation at all levels, lexical, phonological and grammatical is creative, guided by clearly-defined criteria of judgment and selection. The first criterion is a continuous historical tradition of speaking a particular dialect. The choice of the Tashkent-Ferghana dialect as the base for Uzbek was determined partly by the fact that it 'can be traced back to the linguistic community of the Karkhanid period, and which genetically speaking is related to the Uygur language. Together they form a single and unbroken line of development.'[24] But the choice of an historically authentic dialect is not necessarily synonymous with the selection of the 'most pure dialect'. If that had been the case the original choice of the South Kazakhstan dialect of Uzbek as the base for the literary language would have prevailed. Its possession of full vowel harmony was more in character with historical Uzbek than the modified urban dialects of Tashkent, where the vowel system had been modified and had approximated more and more to Tadzhik or to the vowel system of the Samarkand-Bukhara dialects which replicate the vowel system of Tadzhik.

In any case, in some instances it is difficult to be precise about the authenticity of an indigenous historical development of the language. Thus, in Gagauz, the literary language is formed 'on the base of the Central Comrat and Chayrlung dialects and has retained the traces of its most ancient state',[25] but it is also characterised by considerable importations from Slavonic, Romanic, Greek and Turkish. In syntax and morphology it has much in common with Turkish but there are characteristic morphological innovations from Greek as well. The impact of Slavonic is the analytical manner of forming the components of the Gagauz verb. The influence of other languages on the phonetic and lexical systems of Gaguz is even more pronounced. It would be difficult, therefore, to employ the criterion of 'linguistic purity' or even historical authenticity at all strictly in selecting and stabilising the norms for the literary form of Gagauz.

A third criterion for selecting a dialect base is that it should be the most widely representative, not alone in geographical terms but also, perhaps mainly, to the extent it represents the total complex of dialectal features. For instance, in the case of Bashkir in 1921 after the Kuvakan dialect had been selected as the main base for literacy it was realised that far from all the characteristics of Kuvakan were represented in other dialects. These dialects had been influenced by Tatar and consequently they tended to exert an alien pressure on literary Bashkir. In turn, Kuvakan could not steer those dialects into the main stream of Bashkir linguistic development – in other words the choice of Kuvakan did not ensure a stable set of norms. Only by combining characteristics of Kuvakan and Jurmatin could a sufficiently wide spread acceptability be ensured. It is one of the corollaries of the complexity of the dialectal patterns of Soviet languages and of the requirement of maximum national acceptability of the standardised norms that planning should be flexible and eclectic. For instance 'the formation of the phonological system of the Kalmyk literary language was directed towards blending the sound phenomena which are characteristic of leading dialects', especially the Torgut and Derbet dialects. Literary Kalmyk is a synthesis of dialectal features.[26] Ashkharhabar, the historical literary base of contemporary Armenian, shows a blend of elements from various dialects. Such syntheses are facilitated by the historical development of local dialectal koines,[27] the consequence of natural convergence. In the case of Armenian it produced the north east Armenian (the '*um*' dialect) and the '*ke*' dialect of the south and south west. The consolidation of these two sets of dialects facilitated the rise of the two national literary variants of Armenian. In Bashkir the Kuvakan dialect became the most suitable base for the literary language because of the convergence of the related sub-dialects.[28]

Perhaps the most important criterion used in code selection is the degree to which the proposed dialectal base represents the norms of the spoken language. In the Soviet view the historical development of a literary language whether 'folk' or 'national' is characterised by closer approximation to colloquial forms. Thus, it is argued, the 'historical life of the old Armenian literary language flowed along two lines -- written and spoken. The written language was preserved for centuries almost without undergoing change . . . The need for a written language for lay purposes . . . resulted in the rise of a variant of the written language which reflected the spoken language and was significantly different from Grabar, the historical literary language.'[29] In Bashkir, too, the movement for greater incorporation of colloquial forms may be observed. As in Armenian there were two streams, the folk-colloquial and the written language which 'for the entire duration of its history up to the Soviet revolution differed from each other considerably. When in the eighteenth century changes were made in the written language it was with a view to bringing it closer to colloquial Bashkir and to a greater recognition of the norms of the spoken language.'[30] However, in spite of the invariable tendency towards closer identification with the spoken language it is generally recognised that 'the literary norms of the written language always represent the results of a certain isolation from the colloquial base',[31] so that however well judged the selection of the code may be it is never entirely or finally stabilised. There is a continuing need to maintain the closest contact between the written literary norm and the spoken language.

Whatever phase of the approach to the stabilising process we are concerned with, negative-critical, or positive-creative, and notwithstanding the occasional statement that 'the development of languages in the Soviet Union proceeds from natural, spontaneous tendencies'[32] there is general agreement on the vital role of planning on all levels of linguistic analysis phonology, grammar and lexicon. Developments under Soviet conditions are 'not so much spontaneous as regulated by a system of measures that facilitate the greatest possible expansion of the literary languages'.[33] Guxman is among the most emphatic in this view: 'The formation of a new type of literary language, expressive of a common national unity, is impossible without conscious normalisation, without theoretical comprehension of the norm and codification of definite rules . . . The common national norm in the literary language is never the result of a spontaneous process of language development, but to a certain degree the result of artificial selection and interference with this spontaneous process'.[34] Nevertheless, however deliberate, conscious and theoretically well founded the selection of the code may be, it is impossible to eliminate the possibility of continuing controversy about the appropriateness of the selected norms. This is true as we shall have occasion to note in discussing alphabetic reform, but it is no less true of other aspects of language planning. Thus, 'the standardisation of Bashkir has been criticised because the features selected from Kuvakan and Jurmatin, the twin bases tended to be mutually exclusive, nor do they correspond to features of any of the other dialects.' The new norms, in addition, are not distinguished by sufficient consistency in as much as they are essentially a mechanical mixture of the rules of several dialects.[35] Consequently certain aspects of the standardisation of Bashkir continue to be matters of controversy. The same conclusion is arrived at by Wurm in his discussion of Baskakov's treatment of the planning exercise which has been proceeding for several decades in respect of other Turkic languages.[36] Neither close approximation of the written language to common speech, nor devotion to explicity stated and conscientiously pursued socio-linguistic criteria and guidelines are sufficient to ensure stabilization of the code, necessary to the growth of universal literacy, without continuous adjustment.

(ii) Terminology

Vocabulary undoubtedly is the aspect of language which is most immediately affected by social change, and this is one of the reasons why N. Y. Marr gave such prominence to terminology – 'the linguistic aspect of the future'. Changes in terminology arise partly from the need to enrich the language with the lexical items required by the economic and cultural revolution, partly by the politically motivated desire to eliminate from Soviet languages vestigical lexical items which linked them to pre-revolutionary and genetically related languages – for instance Arabic and Persian. A third cause of the insistence on encouraging lexical change was the wish to ensure that the national languages were able to cope with translation demands from Marx-Engels-Lenin and Stalin. These issues were raised at the Congress of Workers' Education in 1924. A special commission was set up, following the congress of Turkology at Baku in 1926, to initiate work on dictionaries and lexicons for new political and scientific developments. By 1933 this commission had produced several minimum lists for science and technology.[37] The Baku conference also confronted the problem of the 'basic common stock' of the lexicons of Soviet languages but this commonality was alleged to be pan-Turkic and it was disapproved. In 1962 the development of a common stock in more comprehensively Soviet terms was favourably argued at the Alma Ata Conference on the Development of Literary Languages.

Apart from the Soviet-wide commissions on terminology many Union Republics created their own commissions. In Armenia, the Special Terminology Commission by 1950 had approved over 18,000 medical terms and 13,000 legal terms. In Latvia, 40,000 terms were approved between 1947–9.[38] A permanent Terminology Commission of the Soviet Ministry of the Bashkir ASSR was created in the 1940s and its efforts were subsequently continued by the Bashkir branch of the Academy of Science of the USSR.[39] It produced the first normative dictionary which included sociological and philosophical terms, as well as lexicons for botany, chemistry, mathematics, physics, linguistics and medicine. A second series, concerned with the same and additional subjects such as chemistry and forestry was published later.[40] Similar work has continued in most of the other languages. For instance, the Terminology Commission of the Kirgiz Academy of Sciences has been systematising the lexiciology of nearly all branches of science and has produced nearly 70 lexicons.[41]

Such advances in lexicology have been governed by certain theoretically sound principles, though in the matter of foreign importations (as we shall note) there is some ambivalence. The first principle is that 'the maximum possible use should be made of native resources'.[42] The processes of exploiting these resources involving extension and restriction of meaning, word composition, derivation, abbreviation and loan translation, are well known to linguists. The development of native resources has not invariably been uncomplicated. The several dialects of Bashkir often diverge in respect of vocabulary, not so far as the inclusion or exclusion of particular items are concerned but in the semanticity of words which are common to several dialects, especially those terms which concern kinship and other distinctive features of local customs and different cultural orientations. Very often, too, the same words may have different meanings in different dialects, for instance *qasik* 'pilgrim' in the Jurmatin dialect but 'spoon' in the North Western.

The maximum use of native resources entailed the introduction into the literary language of elements of dialects and sub-dialects. In Uzbek for example 'archaic words and expressions were gradually deleted and replaced with words and expressions existing in the spoken language'.[43] It entailed, in the second place the elimination not simply of archaisms but foreign importations. Thus lexical derivations from Arabic into Uzbek amounted to a significant factor in the development of the language historically, in view of the protracted Arab rule of Maverannakhra and the spread of Islam. Although importations from Tadzhik were fewer the influence of that language was also considerable. Every effort was made to eliminate these substratum influences.[44] In Armenia the languages of greatest influence were Arabic, Turkish and Persian, and Armenian was 'freed' of words borrowed from these sources. There can be no doubt that part of the rationale for such 'purifications' was political. Non-Russian foreign importations proclaim the historically close relations of Uzbek as well as Armenian with the disapproved sources. For the same reason Tatar words, of which Bashkir has very many, have been progressively removed.[45]

In this respect the attitude to Russian importations is inconsistent. That language is at least as foreign to speakers of Central Asian languages, and for that matter to speakers of Armenian, as Arabic and Persian or Turkish are. Indeed in the 1920s and 1930s there was a similar disinclination to allow the importation of Russian terms. Gradually the attitude changed: 'the experience of the peoples of the USSR has shown', it was claimed 'that the Russian language has played and will play a historically important role in the development of their languages. Thanks to its richness the Russian language is the main source of borrowing . . . In most of the languages of the USSR 70–80% of the new terms have been borrowed from Russian.'[46] An analysis of a sample of Uzbek periodicals between 1933–40 shows that, while the percentage of Arabic and Persian words has declined from 37% to 25%, the Russian element increased from 2% to 15%.[47] In 1950, 18% of the items in a Uzbek/Turkic dictionary were of Russian origin,[48] while a Tatar dictionary contained twice as many Russian loan words in the 1958 edition as there were in the 1929 edition.[49] Because of this extent of Russian infiltration 'a merging of the lexical content of the national languages and the Russian language has occurred and through this a merging of the lexicons of the national languages themselves'.[50]

The Russian influence is more pervasive than this indirect contribution suggests, since the Russian language has become the accepted model as well as a main source of lexical enrichment. First, Russian is the intermediary for most words introduced from non-Soviet linguistic sources, English or French or German for instance. Second, the broad application of calquing, mainly from Russian sources has expanded considerably. For instance, in Bashkir we now have 'kultura-ayarti ese' (culturally instructive work), 'kultura-politik ayarti' cultural-political education), 'xeomat geroizmi' (labour heroism).[51] Third, derivatives are formed from Russian by the addition of native affixes. For instance in Bashkir there are now – 'buntarliq (rioting), 'novatorliq' (innovation), 'bol'sevistik' (bolshevik), 'kulturahid' (uncultured), etc. Lithuanian may be taken to exemplify the very wide range of types of indirect Russian influence upon a national language. For instance Lithuanian follows in its own way the Russian practice of abbreviation and contraction, acronym formation. Thus, as in Russian 'spec' for *specialist* the Lithuanians have created 'specas' from 'specseminiras' (special seminar) and 'speckyrius' (special division). The Russian characteristic of prefixed and compound words has influenced the creation of similar words in Lithuanian: the Russian 'soavt' is the analogy for Lithuanian 'bendeaautoris' (joint author). Productive suffixes such as -'yste' are used to produce words on the analogy of Russian, such as 'nacetcik' the Lithuanian 'prisiskaitelis' (well read). Hybridisation of Russian and Lithuanian terms has become a fruitful source as in 'energotraukinys' (Russian 'energopopojezd' – mobile track for railways). Lithuanian words have developed new and more specialised meanings while retaining traditional meanings, mainly because of Russian influence. For instance, the verb 'uzastrinti' (to sharpen) has come to acquire an abstract or metaphoric meaning on the lines of Russian 'zaostrit' (to refine or to stress an argument). Finally, international words borrowed through Russian help in restricting or refining native or traditional meanings. For instance 'plenumas' meaning special political meeting is now available in addition to the native 'pilnatis' which means plenary session.[52]

(iii) Alphabetic reform

The Soviet Union is not simply multilingual but multigraphic as well, and was even more so at the commencement of the Soviet régime. At one time the main alphabets were Arabic and Cyrillic, but there were some examples of the use of a Latin script, especially in the Baltic countries; while Georgian and Armenian were each of them unique alphabets within the USSR. Other nationalities had been given modified Russian scripts, Abur, as far back as the fourteenth century by missionaries like St. Stephen of Perm. These were the Finno-Ugrian group of the Volga Basin, Mari and Komi. The motives for alphabet reform were several: it was claimed that Arabic was unsuited to some of the Central Asian languages, but in these cases it was even more the case that it was felt that Soviet languages should be separated as far as possible from non-Soviet and independent speakers of related languages. There was the imperative requirement to diminish the degree of heterogeneity which existed in the USSR, though its abolition, official statements notwithstanding, has never been a feasible proposition, in view of the existence of such historically rich and powerful nations with unique alphabets such as the Georgians. But even if radical changes in the alphabets had not been contemplated it was generally agreed that the alphabets of several languages needed reforming. For instance changes had been introduced into Armenian, the need for which arose entirely from the intrinsic dialect situation of that country. In 1927 a new orthography was introduced, and so far as East Armenian is concerned this involved the omission of two traditional signs – *o* and *t*. The appearance of the East Armenian dialect became significantly different from that of West Armenian, with consequent marked mutual unintelligibility. In 1940 the two signs were reinstated in order to bring the two dialects together once again. Similar internal stresses occurred within the Arabic alphabets and their reform was proposed, both in Turkey and among the Turkic peoples of the USSR as early as 1862.

With the inauguration of the Soviet régime the demand for reform became widespread. In 1919 a special section of the Department of National Minorities of the USSR Commissariat of Education was created to develop textbooks and literature with the help of local teachers, and this necessitated the development or adaptation of scripts. By 1922 the adoption of latinisation was receiving approval, exemplified for instance by the report of the Second Conference of Uzbek Education Workers who fiercely opposed any suggestion of Cyrillic innovations as smacking of Russification.[53] In the meantime Azerbaydzhan was already revising the existing latinised script, New Road (jeni jol) and was attempting to substitute it for the Arabic alphabet.[54] The first Azerbaydzhan periodical in the latinised alphabet was issued with 200 copies in 1922. By 1926 the circulation had risen to 6000.[55] Between the two dates the latinised script had been accepted, though with some reservations all over Central Asia. The discussions culminated at the First Turkic Congress in Baku in 1926 which, after heated argument, accepted the principle of the superiority of the Latin over the Arabic alphabet.

The new Latin alphabet was named the Unified New Turkic Alphabet (Novogo Tyurkskogo Alfavita-NTA). By order of the Supreme Soviet of the USSR (UTsIK) a permanent organisation was established to undertake research and to organise the introduction of the new alphabet, namely the All Union Central Committee on the New Turkic Alphabet (Vsesoyuznyy Tsentral'nyy Komitet Novogo Turkskogo Alfavita (VTsKNTA). The initial impulse was to unify the 17 latinising projects but at the second plenary session of the VTsKNTA in 1929 it was agreed that this was impracticable because of the considerable differences between the phonetic systems of the various languages.[56] Nevertheless sufficient unity was achieved to satisfy the political demands for a means of drawing together the various Soviet nationalities. By 1928 all Union Republics were using NTA and schools were becoming acquainted with it.[57] By 1930 36 nationalities with a total of 30 millions accepted it. At this point the VTsKNTA ceased to function as a specifically Turkic oriented commission and a new department, a direct organ of the Central government was substituted with responsibility for promoting latinised scripts for all peoples, Turkic and Non-Turkic. This was the Vsoyuznoyy Komitet Novogo Alfavita pri VTsIK SSSR (VTsKNA pri VTsIK SSSR).[58]

However, the promoters of NTA were already in difficulties because the Russian Cyrillic script was preferred by some nationalities, and by 1937 there were clear indications of a radical switch of policy. The first adumbrations were sensed at the Seventh Plenary Session of the VTsKNA itself when it was found necessary to agree that the Kabardo-Balkars should be allowed to adopt the

Cyrillic script. In 1939 Daghestan adopted Cyrillic and by 1940 it had spread to most Republics, more than 68 languages having been supplied with scripts and over 25 millions, it was claimed, able to use them. In all these developments at least five different but related aspects have to be distinguished. In the first place there was the creation of alphabets of any kind for some languages; and this, in the abstract was the main contribution to literacy made by the linguists. Secondly, there was the decision to have as far as possible a unified base, whether this was Latin or Russian. This has conduced to the gradual involvement towards a homogeneous Soviet society though it was not necessary to the creation of any national language. The third aspect is concerned with the choice of Latin, which meant severing the connection of some languages with the written form or related languages outside the USSR. The fourth is the change from Latin to Cyrillic which was brought about not so much to improve literacy in any national language but to facilitate the acquisition of literacy in a second language, Russian. Finally, whatever alphabet was used, Russian or Latin, it meant, for very many languages for the first time, that they were able to compete with major languages, whether Russian or the languages of Union Republics other than Russia, and could be the basis for expanded social functions which, in theory at least if not in practice, could be fully comprehensive.

(3) The Growth and Differentiation of Literacy – (a) Fundamental literacy

The main agencies for the promotion of literacy have been the schools, and the mass media. In 1969 the number of students in general education schools in the whole of the USSR had increased by five times since 1914. In some nations of the Union the increase had been very much greater – Uzbekistan 1,300%, Tadzhikstan 1,000%, Kirgistan 900% and Turkestan 600%. In addition schools were established for illiterate adults. In Uzbekistan 51 points were established in 1924 and this number increased to 82 in the following year. Corresponding to this rise in the provision of formal education there was a similar development of printing and publishing in Russian and in the national languages. The greatest impact was made on the Turkic people who, prior to the Revolution had no publishing houses to speak of, and where publishing was severely restricted. Between 1913 and 1963 the number of titles appearing in Kazakh rose from 40 to 187. By the following year the number was 500 and by 1966 the figure was 557. The story of the other nations is very much of a piece.[59]

The consequence of the increase in educational provision and books has been a remarkable rise in the level of fundamental literacy in both the *lingua franca* and the national languages. The campaign to develop vernacular literacy has to be seen against a dark background of deprivation. In 1897 only 28% of the whole population were able to read at all. By 1926 the general level for the then Empire had risen, in respect of those between ages 9 and 49, to 56%; by 1938 the level was 87% and by 1970 the figure had risen to 99.7%.

TABLE 1

*Literacy of the population in the Union Republics 1968 (percentages of literates in the 9–49 age group)**

	Both sexes				Males				Females			
	1897	1926	1939	1959	1897	1926	1939	1959	1897	1926	1939	1959
U.S.S.R.	28.4	56.6	87.4	98.5	40.3	71.5	93.5	99.3	16.6	42.7	81.6	97.8
R.S.F.S.R.	29.6	60.9	89.7	98.5	44.4	77.1	96.0	99.3	15.4	46.4	83.9	97.7
Ukrainian S.S.R.	27.9	63.6	88.2	99.1	41.7	81.1	93.9	99.6	14.0	47.2	82.9	98.8
Belorussian S.S.R.	32.0	59.7	80.8	99.0	43.5	79.1	90.7	99.5	20.7	41.3	71.4	98.6
Uzbek S.S.R.	3.6	11.6	78.7	98.1	5.6	15.3	83.6	99.0	1.2	7.3	73.3	97.3
Kazakh S.S.R.	8.1	25.2	83.6	96.9	12.0	35.4	90.3	98.8	3.6	14.5	75.8	95.1
Georgian S.S.R.	23.6	53.0	89.3	99.0	29.1	61.2	93.4	99.4	17.1	44.6	85.2	98.6
Azerbaydzhan S.S.R.	9.2	28.2	82.8	97.3	13.1	36.1	88.8	98.8	4.2	19.2	76.1	96.0
Lithuanian S.S.R.	54.2	–	76.7	98.5	57.1	–	78.7	98.9	51.4	–	75.0	98.1
Moldavian S.S.R.	22.2	–	45.9	97.8	31.2	–	59.0	99.1	12.7	–	33.1	96.6
Latvian S.S.R.	79.7	–	92.7	99.0	80.5	–	94.6	99.4	78.9	–	91.0	98.8
Kirgiz S.S.R.	3.1	16.5	79.8	98.0	5.0	23.9	84.9	99.0	0.8	8.4	74.4	97.0
Tadzhik S.S.R.	2.3	3.8	82.8	96.2	3.9	6.4	87.4	98.0	0.3	0.9	77.5	94.6
Armenian S.S.R.	9.2	38.7	83.9	98.4	14.5	53.7	92.7	99.2	2.9	22.7	74.7	97.6
Turkmen S.S.R.	7.8	14.0	77.7	95.4	11.5	18.3	83.0	97.7	2.7	8.8	71.9	93.4
Estonian S.S.R.	96.2	–	98.6	99.6	96.0	–	98.9	99.7	96.3	–	98.3	99.5

* Source: Strana Sovetsov za 50 let., 1969, 278.

Some of the smaller nationalities, between 1926 and 1959, were equally successful in their literacy campaigns –

TABLE 2

Growth of Literacy among selected minorities in any language – 1926 and 1959

	Karakalpak	Uygur	Yakut	Chukchi
1926	1.3	4.5	2.0	6.0
1959	51.0	54.5	96.3	54.0

Source the Census of 1926 and 1959.

It is not unfair to say, therefore, that illiteracy if it has not been entirely eliminated in the Soviet Union is well on the way to being so. This means not only an equalisation of the position of classes and of very different ethnic groups but of the two sexes. Whereas in 1917 the level of illiteracy among women was over 88% compared with 76% among men, the position has been rectified very considerably by today. It is true that in the Muslim areas sex equality in literacy is far from being achieved since the drop-out rate of girls from secondary school is very high – in some areas only 8% of those who entered remain in the tenth grade.[60] The percentage literacy among women according to the 1970 census was 86, and this is related to the fact that 52% of the population of general educational schools are girls, 51% of the enrolment of higher educational establishments, 29% of post graduate students, 70% of teachers and 36% of teachers.

(b) – Functional literacy

Fundamental literacy however is not the entire story – there is the equally important question concerning the opportunities to use the skill available to those who are literate in non-Russian languages. Here the position is somewhat ambiguous. First, there can be doubt that the work of linguists in the USSR has expanded the range of social functions for very many languages. Languages which, prior to their standardisation and graphicisation were confined to limited areas geographically and to a limited range of functions are now, potentially, in a position of equality with any of the major languages, even Russian. However, the Russian language is expropriating the most prestigious and socially significant functions. Even the basic roles of the national languages, exemplified by use among members of the family are being superseded: more and more non-Russians claim Russian as their native language, 18% in the case of Udmurt 12% of Uygurs and 33% of the peoples of the North, for instance.[61] In the area of primary and secondary education Russian is the dominant language even among 'nationalities', and it is almost the exclusive language of major courses in institutes of higher education. In industry the most sophisticated operations demand the use of Russian, which takes over at even the lower levels of industry where the degree of ethnic heterogeneity makes it convenient to do so. In science and technology as well as in State administration Russian is coming to exercise an increasing functional prerogative although national languages are more assertive at severely local levels. In the domains of mass communication national languages are used in newspapers and periodicals, on radio and in films, but their use is localised and more readers are turning to Russian, partly because it is easier to obtain Russian publications than publications in local languages. Face to face oral communication enables national languages to play their part and for that reason non-Russian languages play an important part in local public services. But so far as recording transactions go Russian is the most frequently used language. In the administration of justice all languages are guaranteed a role and this is strictly observed. But only Russian is current in all courts of law and at all levels of justice.

These aspects of the functional differentiation of Soviet languages, as it affects the use of the skills of reading and writing may be illustrated in the case of Yakut. Although this nation has a 96.3% literacy and 16% of the population have attended secondary school, the language is used only in Primary schools. Russian is used in the administration of justice, in science and technology. The shift to Russian literacy is accelerating: in 1939 less than 1% claimed Russian, by 1959 the figure was 3% and by 1970 the figure was 4%. Similarly, Abaz spoken by approximately 20,000 was alphabeticised in the early 1920s but it has not been promoted as a language of instruction in secondary schools. School books of only the most elementary sort have been produced in the language. Even when Russian and the national language overlap in their functional roles there is considerable difference in the frequency or intensity of their employment. For instance Russian and Georgian are used in the Georgian SSSR for the teaching of physics. But because it is claimed that Georgian writings on physics have not covered all aspects of the subject in the past the use of Russian is far more frequent and popular.[62]

Conclusion

There is no gainsaying the very considerable linguistic effort that has gone into the phenomenal rise in the level of Soviet literacy. The work of the linguists receives its justification as an important function of social change. It has affected the *lingua franca*, Russian, and the non-Russian, national languages, as well as the relativities between the two categories of languages. The national languages have profited greatly from language planning, both in specifically linguistic as well as socio-linguistic terms. Nevertheless the predominance of Russian is very apparent in the linguistic development of the bases of national language literacy, and in the opportunities to extend the functions of literacy in those languages. Second language literacy is encroaching upon literacy in the native language.

Notes

[1] *Izvestiya*, April 1971, Table 14 Census, 1970.

[2] Pokshishevskiy, V. V. *Urbanization and Ethnographic processes* (in Russian) *Problemy urbanisatsii v SSSR.* 1971 pp. 53–62.

[3] *Izvestiya*, April 1971.

[4] Lewis, E. Glyn. *Multilingualism in the Soviet Union.* The Hague Mouton, 1972 pp. 262–70.

[5] Stalin, J. V., *Sochineniya*. Vol. V: Moscow, 1952.

[6] *Izvestiya*, April 1971, Table 14.

[7] *Ibid.*

[8] Guxman, N. M., *Voprosy formirovania i razvitiia nasional'ny jazykov* (Problems of the Formation and Development of National Langs.) Moscow, 1960 p. 4.

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[14] Guxman, N. M., *op. cit.* p. 8.

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[31] Guxman, M. M., *op. cit.* p. 29.

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[34] Guxman, M. M., *op. cit.* p. 25.

[35] Juldasev, A. A., in Guxman, *op. cit.* p. 16.

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[44] *Ibid*, p. 26.

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[55] See note 16, pp. 31–32.

[56] *Ibid.*

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[61] *Ibid*, p. 132, 148.

[62] Lewis, E. Glyn, 'The Sociological Bases of the Relationship of Soviet Languages,' to appear in *Forum Linguisticum* Contributions to Applied Linguistics, (ed. Gutkrecht, C.) 1975.

Literacy in Ibero-America and the Caribbean*

Yolanda Lastra

Universal primary education is the law in most countries in the Americas, yet only about half of the population is literate. Illiteracy is the concern of many people: politicians, economists, educators, missionaries. Linguists have played a relatively minor role, but their contribution has, nevertheless, been important. It is the aim of this paper to point out this contribution while describing the literacy situation in Ibero-America and the Caribbean.[1]

The word 'literacy' means different things to different people. A person who knows how to read and write his own name may be considered literate, but to literacy experts a literate person is one who is 'functionally' literate. In other words, an individual who has mastered the writing system of his language to the extent that he can handle it efficiently in his daily life. Literacy is thus a relative matter, because a peasant who can slowly make out the directions on a fertilizer bag, can sign his name, and write an occasional letter is functionally literate in his community, whereas if he moved to a large urban centre he might be considered illiterate.

In what follows, it is important to bear this relativity in mind, even though for practical purposes it is becoming customary to consider a person literate when he has finished four years of primary school or its equivalent. Another factor to bear in mind is that a person who attended school and who never applied what he learned may easily relapse into illiteracy. The statistics below, thus, are related to reality, but may not in fact describe it.

The primary school systems which should ideally be in charge of making every citizen literate are discussed first. Since in practically every country it is necessary to supplement primary education with adult literacy programs or with national literacy campaigns, these are discussed next. It is comparatively easy to educate people in the official language when they are native speakers, but in most countries there are minorities that speak a language other than the official one. Governments approach this problem in different ways: by ignoring it, by trying to teach the minorities the national language and then literacy, or by trying to make them bilingual and biliterate. Private institutions and international organizations have in many instances made it their responsibility to educate minorities. Their activities as well as those of national governments are described in turn. The application of linguistics has largely been confined to the problem of making minorities biliterate. The contribution of linguistics is pointed out when appropriate, and the relatively scant literature of a technical sort which has any bearing on the relationship between language and writing, and linguistics and literacy, is reviewed. Finally, some further applications of our discipline to literacy in Latin America and the Caribbean are pointed out.

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The countries in the area are discussed from north to south from Mexico through Central America and South America, then north again to the Hispanic and non-Hispanic Caribbean.

Primary Education

1.1 *Ibero-America*

1.1.1. The legal basis for compulsory education in Latin America was laid down in the nineteenth century, but this principle has only recently begun to become a reality. In 1948 there was a conference of Latin American educators held in Caracas under the sponsorship of UNESCO and OAS at which it was decided that illiteracy should be dealt with at the primary school level and that the schooling of children should take priority over literacy campaigns. At succeeding seminars in Rio de Janeiro and Montevideo in subsequent years, the primary school problem was carefully studied. At the Second Conference of Ministers of Education (Lima, 1956) it was decided to generalize primary schooling. A Third Conference of Ministers of Education was held in Bogotá in 1963. All these meetings have contributed towards the awakening of public interest in primary education and as a result there has been substantial improvement.

The description which follows is drawn primarily from *La educación primaria en América Latina* (1963), prepared by UNESCO and distributed by OAS in mimeographed form, and on the reports of the ministers presented at the Bogotá Conference.

Elementary education is free and compulsory in every Latin American country, but the regulations are not enforced where there are not enough facilities. Almost every country provides for 6 years of schooling, but some provide shorter courses in rural areas. The ages for compulsory attendance vary from country to country. (See Table 1). Rural education is usually inferior; enrollment is lower, and desertion, absenteeism, and irregular attendance are higher in rural than in urban areas. There is a direct correlation between the

TABLE 1

Primary School in Ibero-America and the Caribbean *

	Year	Compul-sory	Percent enrol-led**	Ages	Rural diff. from urban	Number of grades***
MEXICO AND CENTRAL AMERICA						
Mexico	1961	Yes	93	6-15		6
Guatemala	1961	Yes	58	7-14		6
El Salvador	1961	Yes	122	7-14		6
Honduras	1961	Yes	76	7-15	Yes	6,3
Nicaragua	1961	Yes	66	7-14		6
Costa Rica	1961	Yes	112	7-14		6
Panama	1961	Yes	104	7-15		6
SOUTH AMERICA						
Colombia	1961	Yes	73	7-14	Yes	5,2-4
Venezuela	1961	Yes	114	7-14		6
Ecuador	1961	Yes	92	6-14		6
Peru	1961	Yes	85	6-16		6
Bolivia	1961	Yes	93	7-14	Yes	6,4
Chile	1961	Yes	101	7-15	Yes	6,4
Argentina	1961	Yes	119	6-14		7
Paraguay	1961	Yes	105	7-14		6
Uruguay	1961	Yes	184	6-14	Yes	6
Brazil	1961	Yes	80	7-12		5,4
HISPANIC CARIBBEAN						
Cuba	1961	Yes	101	6-12	Yes	6
Dominican Republic	1961	Yes	100	7-14		6
Puerto Rico	1961	Yes		8-14		6
NON-HISPANIC CARIBBEAN						
Haiti	1961	Yes	44	7-14		
British Affiliated areas						
Jamaica		No	80-85	7-15		
Trinidad and Tobago		No	88	5-15		
Bahamas		Yes		14		
Bermuda		Yes		7-12		
British Guiana		Yes	90	6-14		
British Honduras	1964	Yes	95	5-14		
British Virgin Islands		No		5-15		
Barbados		No	98			

Continued

TABLE 1–*Continued*

	Year	Compulsory	Percent enrolled**	Ages	Rural diff. from urban	Number of grades***
Turks and Caicos		Yes				
Leeward Islands		Yes	98	5-14		
Windward Islands		No	70			
French Areas						
Guadeloupe	1950	Yes	80	6-14		
Martinique	1950	Yes	99	6-14		
French Guiana	1950	Yes	98	6-14		
Dutch Areas						
Surinam	1955	Yes	80	7-14		
Netherlands Antilles	1962	No	95			

* Sources: OAS, *América en Cifras*; UNESCO, *International Guide*; Hauch (1960); Netherlands Antilles Inspector of Education; Jolly, 'Education'.

** Figures above 100 mean people above the normal age limits attend primary school.

*** The second figure refers to rural schools.

adult illiteracy rate and the percentage of rural population in a given country. (See Table 2). The percentage of children enrolled in school in Latin America is shown on Table 1.

Enrollments have risen 31% from 1956 to 1961, but this increase reflects a larger enrollment in the lower grades; the percentage of those who finish primary school is about 20%. (See Table 3)

TABLE 2

*Latin America: Income per capita, percentage of rural population, and illiteracy (1950)**

		Percentage of adult illiterates	Income per capita (U.S.cy)
Illiteracy Rate Less than 25% Average Percentage of Rural Population: 40%	Argentina	13	300-449
	Uruguay	15	300-449
	Chile	19	150-299
	Costa Rica	20	100-149
	Cuba	20	300-449
Illiteracy Rate 25-50% Average Percentage of Rural Population: 62%	Panama	30	150-299
	Paraguay	34	-100
	Colombia	37	100-149
	Mexico	36	100-149

TABLE 2–*Continued*

		Percentage of adult illiterates	Income per capita (U.S.cy)
	Ecudar	44	-100
	Venezuela	47	300-449
	Brazil	50	100-149
Illiteracy Rate Above 50% Average Percentage of Rural Population: 74%	Peru	53	100-149
	Dominican Republic	57	-100
	El Salvador	60	100-149
	Nicaragua	61	100-149
	Honduras	64	-100
	Bolivia	67	-100
	Guatemala	70	-100
	Haiti	89	-100

* UNESCO (1963), *La educación primaria en América Latina.*

TABLE 3

*Percentage of Children who Finish Primary Schools in Some Latin American Countries**

Panama	1961	31.2%
Chile	1956	24.8%
Venezuela	1959	22.7%
Costa Rica	1955	22.2%
Brazil	1959	18.7%
Peru	1955	18.4%
Colombia	1958	14.2%
Ecuador	1958	14.0%
El Salvador	1957	10.5%
Honduras	1961	6.5%
Nicaragua	1959	5.0%
Haiti	1960	3.2%

* UNESCO (1963), *La educación primaria en América Latina.*

Table 4, which includes the countries of the non-Hispanic Caribbean, summarizes the enrollment situation and classifies countries in three groups: (A) those with total enrollment; (B) those with enrollment of 75% or above; (C) those with enrollment below 75%.

TABLE 4

*Enrollment in Primary School**

Group A	Group B	Group C
100% enrollment of children; minimum absenteeism	Enrollment above 75%; minimum urban absenteeism; considerable rural absenteeism	Enrollment below 75%
El Salvador	Mexico	Guatemala
Costa Rica	Honduras	Nicaragua
Panama	Ecuador	Colombia
Venezuela	Peru	Haiti
Chile	Bolivia	Windward Islands
Argentina	Brazil	
Paraguay	Jamaica	
Uruguay	Trinidad and Tobago	
Cuba	British Guiana	
Dominican Republic	British Honduras	
	Barbados	
	Leeward Islands	
	Guadeloupe	
	Martinique	
	French Guiana	
	Surinam	
	Netherlands Antilles	

* Source for Latin America: UNESCO (1963), *La educación primaria en América Latina.*

With the increase in the number of children attending school, there has been an accompanying decrease of the quality of teaching reflected in the high number of non-certified teachers, which averages 44% (0% in Argentina, 7% in Panama, to 70% in Bolivia and Colombia). The teacher-to-student ratio is generally low (the average is thirty-six students per teacher for Latin America, twenty-three for Argentina, fifty-six for the Dominican Republic), but teachers are not evenly distributed throughout urban and rural areas, and neither are schools, which through poor planning are often built where there is no urgent need for them.

Policy and administration are under Ministries of Education, which are very similar in structure throughout the area. Political upheavals often disturb the education process, especially in those countries where the teaching personnel is not protected by law against becoming unemployed as a result of changes in administration.

The role of private education is very important. About 8% of primary school children are enrolled in private institutions. The proportion varies greatly from country to country. These schools, usually sponsored by religious bodies, follow official programs and are visited by ministry inspectors. Their role is very valuable in remote areas where mission schools are often the only ones available.

Population growth in Latin America (2.5% per year) is higher than in any other area in the world, and the school age population represents 20% of the total, while in Europe it varies between 12 and 15%. The increase in population makes it difficult for Latin American countries with their existing economic resources to supply the necessary schools. Adult illiteracy is the result of lack of schooling or of insufficient or inadequate schooling. There is a correlation between the per capita income of a country on the one hand, and the percentage of its adult illiterates on the other. The correlation is not by any means a cause and effect one, however, as can be seen on Table 2 by taking Paraguay and Venezuela as examples. The former, in the group of countries with low per capita income (less than $100) has a comparatively low illiteracy rate (34%) while the latter, in the group of countries with high per capita income ($300–449) has an illiteracy rate of 47.8%.[2]

1.1.2. After the adoption of the Constitution of 1917 by *Mexico*, the Department of Education (Secretaría de Educación Pública, SEP) was organized along its present lines and a series of reforms designed to make education available to all social classes was instituted. The number of schools and the percentage of children of school age enrolled has been steadily increasing since the Revolution (1910) and effects continue to be made to improve both the quantity and quality of education. Schools are municipal, state, or federal, but matters of policy are all centralized, and the government supervises and inspects all private schools that wish to be officially recognized.

The main problem in education faced by *Honduras* is that among the rural population, which constitutes about 69% of the total, schooling is not considered very important. Lack of school attendance is a grave problem and only about 16% of the children finish primary school. There is also a great need for certified teachers since only about 44% have normal school diplomas. Similar problems exist in *Nicaragua*, where 70% of the teachers are uncertified and there are only enough schools for 50% of the children of school age because of lack of funds, and in *Panama*, where there are not enough elementary schools and many do not offer all the primary grades.

In *Colombia* illiteracy is caused by insuffient number of schools and lack of attendance. Out of 100 children only about 19 go through fourth grade and only 14 through fifth grade. These problems are specially true of rural areas.

In *Peru* there is a great need for primary schools. Accordingly many small rural one-grade schools are being built and associated to schools in the same area which offer all primary grades.

Two authorities are responsible for elementary education in *Bolivia*: The Ministry of Education, in charge of urban schools, and the Ministerio de Asuntos

Campesinos (Ministry of Peasant Affairs). The percentage of children attending schools is 81% in the urban areas and 43% in the rural ones, primarily because of lack of schools. In the decade between 1951 and 1961 some 3,000 schools were built in rural areas, usually on the peasants' own initiative, but many more are still to be built. The difference between urban and rural schools is that in the rural areas many schools offer only four grades, and only the 'nucleos escolares', to which the smaller schools are associated, offer the complete six grade cycle. Education for the large number of Quechua and Aymara speaking children continues to be in the official language in spite of the fact that the 1956 Bolivian code of education states that literacy must be initiated in the mother tongue.

There are 2,589 schools in *Paraguay* when there should be more than twice as many according to the report of the Ministerio de Educación y de Culto (Ministry of Education and Religion) to the UNESCO-IBE Commission in 1964.[3]

In *Uruguay*, according to a very detailed statistical report prepared by the Comisión de Desarrollo e Inversiones Económicas, *Informe preliminar sobre la situación de la educación en el Uruguay* (Montevideo, 1960) the problem of absenteeism in primary schools is declining, but that of desertion is still a major one. 59.1% of the pupils attending primary school leave without finishing the 6 grades. About one third of these have finished fourth grade. Many children repeat one, two, or three grades; the repeaters usually come from the lower classes and the number is larger in rural areas. Deserters and repeaters who don't reach sixth grade by the time they can legally leave school become potential functional illiterates. Thus we see that even in a country like Uruguay with a high primary school enrollment and a low official illiteracy rate (9.5%) there is still a large number of functional illiterates in rural areas.

A national three-year plan for economic and social development (1963–65) is now in effect in *Brazil*. The following figures are available: 100,000 new school rooms are necessary by 1970 for 6,000,000 pupils; 600,000 children finish four grades every year; it would be necessary to have 2,000,000 children have that much schooling.

During Trujillo's rule in the *Dominican Republic* there was a program to create two-year rural schools for both children and adults, called emergency schools, to combat the illiteracy problem. In 1945, 500 such schools were in operation; and in 1954 there were 1,271 with 66,811 pupils.

Elementary education in *Cuba* is free and compulsory for children from the ages of 6 to 12. There are six grades in primary schools. The system of education has undergone considerable reform since 1959. The Ministry of Education is responsible for general policy, but the system has been decentralized. Enrollment has risen considerably in recent years. In 1958 about 737,000 were attending primary school. This number represented about half of the children between the ages of 7 and 14. By 1962 about four fifths of the children of the same age group were enrolled.

1.2 *Non-Hispanic Caribbean*

1.2.1. The non-Hispanic Caribbean includes Haiti, an independent republic, Trinidad and Tobago, and Jamaica, two independent countries which are members of the Commonwealth, and the islands and mainland territories which have close political ties or are political dependencies of the United Kingdom, France, or the Netherlands.

The British affiliated areas, aside from Jamaica and Trinidad and Tobago, are British Honduras and British Guiana on the mainland in Central and South America respectively, the Bahamas and Bermuda which do not consider themselves Caribbean territories, the British Virgin Islands, and the island countries of the Federation of the West Indies, namely Barbados, Turks and Caicos, the Leeward Islands (Antigua, Montserrat, St. Kitts-Nevis-Anguilla), and the Windward Islands (Dominica, Grenada, St. Lucia, St. Vincent, St. Helena).

The French affiliated areas are three overseas departments of France: French Guiana, on the South American mainland, Guadeloupe (two main islands and smaller dependencies), and the island of Martinique.

The Netherlands affiliated areas constitute two political units co-equal with the Netherlands proper since 1954. These are Surinam, on the South American mainland and the Netherlands Antilles which includes the Netherlands Leeward Islands (Curaçao, Aruba, and Bonaire) and the Netherlands Windward Islands (Saba, St. Eustatius, and part of St. Maarten).

Awareness of the basic similarities and needs of the whole area and a desire for economic and cultural cooperation led to the organization of the Caribbean Commission in 1946 by the Netherlands, the United Kingdom, France, and the United States. The Commission established a Secretariat in Trinidad to serve as a center of information in matters such as education. The Fifth Session of the West Indian Conference (1952) recommended that UNESCO be asked to assist the Commission in the field of adult education including literacy training. As a result a UNESCO consultant, H. W. Howes, prepared a *Study of Fundamental, Adult, Literacy, and Community Education in the West Indies* (1955) for the Sixth Session held at Puerto Rico in 1955. A Conference on Education and Small Scale Farming, jointly sponsored by the Commission and UNESCO, recommended that the Sixth Session consider the establishment of a Clearing House for information regarding materials on primary and adult education. Part of its report, dealing with common problems in education and community development, is contained in *Education in the Caribbean* (1956). The Clearing House was set up at the Commission's Secretariat, and it prepared a *Bibliography of Education in the Caribbean* (1959). Unfortunately, the Caribbean Commission has now been dissolved, apparently for political reasons, and the Clearing House was closed down in 1956. UNESCO's *International Guide to Educational Documentation* 1955–60 (1963) provides essential information on the systems of education in this region and Hauch's *Educational Trends in the Caribbean* (1960) includes an excellent summary of the cultural background.

The territories of the non-Hispanic Caribbean share certain political and economic patterns which co-occur with socio-linguistic patterns typical of the area, which give rise to peculiar education problems which have not been adequately met. Generally speaking, the territories have strong cultural, political, and economic ties with Europe, under-developed rural economies coupled with rapid demographic growth, mixed ethnic composition with a large negro element, and official languages (English, French, or Dutch) which are seldom the languages used by the people in their every-day activites (a creole, a non-European imported language, or, less often, an Amerindian language). The problem of teaching people an official language which is not their mother tongue has not been met squarely in any of these areas, although the linguistic naiveté of the authorities varies from country to country: In the French areas the use of the vernacular is forbidden in the classroom whereas in Surinam provision is made for bilingual schools, and the government sponsors a language research institute. In countries with such cultural and linguistic heterogeneity, a low standard of living, and comparatively small budgets devoted to education, one can hardly be surprised to find inadequacies in the education systems and a high percentage of illiteracy.

1.2.2. The Constitution of 1957, promulgated in *Haiti* shortly after Duvalier took office as president, declares education to be free and compulsory. The period of obligation is declared by law to be between the ages of seven and fourteen, but this provision is not enforced. Education is under the authority of the Minister of Education who is an appointed official. Local communities have no responsibility for the administration of schools. There are a number of church schools which receive small government subsidies.

In 1961 about 33% of the 736,000 children of school age were enrolled in primary school. This is the lowest percentage in the hemisphere. The number of children who finish primary school is much smaller than the number of children who begin. This is particularly true of rural areas where, for instance, in 1962, 60,000 children were enrolled in first grade (about 60% of the total enrollment) and only 700 in sixth grade.[4]

There are not enough schools and not enough teachers; about 15% of the instructors have normal-school diplomas. The teacher – pupil ratio reaches extremely high proportions in rural areas where there are groups of 200–250 children. Those who attend school do not necessarily learn to read. Instruction is given in French, the official language, even though the majority of the population speaks only Creole. No attempt is made to teach children reading in the vernacular or to teach them French before attempting to teach them to read it. Some educators in Haiti are aware of the necessity of changing the system, but they have been faced with the political power of an elite who profit from the ignorance of the masses and prefer to insist on the prestige of French. Due to the lack of schools, the poor quality of the instruction, as well as the growth of the population, the number of adult illiterates increases every year.

Education is free in *Jamaica*, but compulsory (for children between 7 and

15) only in certain areas. In *Trinidad and Tobago* education for children between 5 and 15 is free. At the time of the 1960 census about 75% of the population between 5 and 19 were attending school. The language of instruction of children is English, even though a large part of the population speaks a French-based creole.

In *British Honduras* education is free and compulsory for children 5–14, and this is enforced wherever schools are available. The medium of instruction is English even though a large number of people speak Spanish, Maya, or Chekchí. The population is estimated to be 103,000 and, according to the data furnished by the Ministry of Education, school enrollment represents 95% of the children of school age. This figure seems an extremely high one when one considers that, according to the estimated figure of the American Indianist Institute, when the total population was 64,300 the Indian population numbered 14,500 and there seems to be no adequate provision for the education of the Indians.

In *British Guiana* the Ministry of Community Development and Education is responsible for education policy. Primary education is free and compulsory for children between six and fourteen years of age. The language of about 90% of the population is English. There are Amerindian tribes who speak several languages and who have not been in any way assimilated to the culture of the rest of the population.

The British Caribbean in general has the problem of an increasing population which has to be met by building schools and training teachers. The low enrollment ratios are due to lack of schools in some areas and in others to the fact that education is not compulsory (See Table 1). There are also low attendance records specially in the rural areas. Church schools play a very important role throughout the area. They are usually inspected and subsidized by the government in question.

Martinique and *Guadeloupe* are heavily populated islands with an agricultural economy. The majority of the people are of African descent and speak a French-based creole. In *French Guiana* 90% of the population estimated at 31,000 in 1960, lives on the coast and also speaks a French-based creole. In the interior there are Amerindians (Carib, Arawak, and Tupi-Guarani) and Bush negroes.

Education is free and compulsory between the ages of 6 and 14 in all three departments, but not enforceable in areas where there are no facilities. The cost of education is largely paid by the French national budget, and most of the schools are government-run and not denominational as in the British and Dutch areas. Martinique is the most advanced of the three departments. There has been a tremendous increase in school enrollment, but not in school attendance. At the 1957 West Indian Conference it was remarked that the curriculum was not suited to the Caribbean environment and, according to Hauch, the situation has not changed since: The programs are exactly the same as in France. French is the only medium of instruction and a large number of children spend several years in the first grade and about one fourth of the total never go beyond fourth grade.

This means that, official statistics notwithstanding, the number of functional illiterates is extremely high.

Education, compulsory for children aged 7–12, is a responsibility shared by the government and private organisations in *Surinam.* In 1955 enrollment was satisfactory in the urban areas, but not in the rural ones where children worked in the farms and schools were overcrowded.

The complex linguistic situation and its relation to educational policies was described by Hellinga in *Language Problems in Surinam* (1951). More recently, Lichtveld's 'National Language Planning' (1964) is an excellent sociolinguistic description of Surinam. Dutch is the official language and the language of education, but it is spoken natively by about 1.5% of the population. There are about 38% Creoles, native speakers of Sranantongo, an English-based creole; 35% Hindustani, speakers of Hindi-Urdu; 13% Javanese; 1.5% Chinese. These groups live in the coastal belt. The interior is populated by Bush negroes (about 9% of the population), descendants of run-away slaves who speak Aukan and Saramakan and by small Carib tribes.

Hellinga found that the denominational schools of the interior left much to be desired because the subjects taught were not adequate for the environment. He also found that the results of entrance examinations to schools of higher education showed insufficient command of Dutch on the part of all non-native speakers, and he advocated bilingual schools. According to Howes, however, the situation in the interior was improving in 1955 and, according to Lichtveld, the matter of deficient knowledge of Dutch is being solved by trying to make the population bilingual at the pre-primary school level. A Linguistic Bureau has been created with partial support from the government. It advises the education authorities on linguistic matters and carries on important research.

Primary education is not complusory in the *Netherlands Antilles*, but about 95% of the children of school age are enrolled in schools. Dutch is the medium of instruction and the programs are practically the same as those in Holland. Children are taught English and Spanish in the last two grades in elementary school. The vernacular, however, is Papiamento.

Literacy Campaigns and Adult[5] Education Programs

2.1 *Latin America*

Besides combating illiteracy at the primary school level there have been a number of adult literacy programs and campaigns. For a summary of illiteracy rates, see Table 5, following.

In *Mexico* the percentage of illiteracy was 58% in 1940; it was 36% in 1963. A national literacy campaign of the 'each one teach one' (see 4.2.3) type was begun in 1944. In a few months it became clear that the results were very poor. Fortunately, many literacy centers were established. There were 11,889 in

TABLE 5

*Adult Illiteracy in Ibero-America and the Caribbean**

	Year	Total Population (thousands)	Adult Population (thousands)	Adult Illiterates (thousands)	Percentage of adult illiterates
MEXICO AND CENTRAL AMERICA					
Mexico	1960	34,923	19,471	6,742	34.6
Guatemala	1950	2,805	1,611	1,138	70.6
El Salvador	1961	2,511	1,694	879	52
Honduras	1961	1,866	969	537	55.4
Nicaragua	1950	1,060	599	369	61.6
Costa Rica	1963	1,333	868	126	14.6
Panama	1960	1,075	607	162	26.7
SOUTH AMERICA					
Colombia	1951	11,334	6,450	2,429	37.6
Venezuela	1961	7,523	4,153	1,309	34.2
Ecuador	1950	3,197	1,843	815	43.3
Peru	1961	9,747	5,109	2,014	39.4
Bolivia	1950	3,019	1,633	1,109	67.9
Chile	1960	7,375	4,440	717	16.2
Argentina	1960	21,247	14,199	1,221	8.6
Paraguay	1950	1,397	747	255	34.2
Uruguay	1950	2,407	1,650	250	15
Brazil	1950	51,976	30,249	15,272	50.6
HISPANIC CARIBBEAN					
Cuba	1962	6,933			3.9
Dominican Republic	1950	2,131	1,185	677	57.1
Puerto Rico	1960	2,349	1,345	261	19.4
NON-HISPANIC CARIBBEAN					
Haiti	1965	4,738	2,808		80
British Affiliated Areas					
Jamaica	1960	1,609	947	171	18
Trinidad and Tobago	1950	632	380	76-95	20-25
Bahamas	1950	79	49	10-12	20-25
Bermuda	1960	42	28	.5	2
British Guiana	1950	420	260	52-65	20-25
British Honduras	1965	103			6.5
British Virgin Islands	1960	7	4	.2	7.1
Barbados	1950	209	140	7-14	5-10
Turks and Caicos	1960	5	3	.2	6.9

Continued

TABLE 5–*Continued*

	Year	Total Population (thousands)	Adult Population (thousands)	Adult Illiterates (thousands)	Percentage of adult illiterates
Leeward Islands					
Antigua	1960	54	30	3	11.3
Montserrat	1960	12	6	1	19.5
St. Kitts	1960	56	30	3	11.8
Windward Islands	1950	276	160	48-56	30-35
French Areas					
Guadeloupe	1950	289	180	54-63	30-35
Martinique	1950	273	170	43-51	25-30
French Guiana	1950	26	16	5-6	30-35
Dutch Areas					
Surinam	1950	219	140	35-42	25-30
Netherlands Antilles					
Curaçao	1960	125			10.7
Aruba	1960	57			15
Bonaire	1960	5.8			23
St Maarten	1960	2.7			25
St Eustatius	1965	1			23
Saba	1965	1			31

* Sources: *UN Demographic Yearbook* 1963; Jolly, 'Education'; UNESCO, *World Illiteracy at Mid-century*; OEA, *América en Cifras*; Paul, *L'Alphabétisation*; communications from the Ministries of Education of British Honduras and the Netherlands Antilles.

1962 as well as 100 reading rooms furnished with appropriate materials for new literates. It is claimed that 6,000,000 adults became literate between 1944 and 1963, but the author of a report on Mexico in CREFAL,[6] Cursillo sobre alfabetización funcional: Informes sobre nueve países (1964) doubts that these new literates are functional literates.

On February 24, 1965, a new National Literacy Campaign was begun. It is directed by the Literacy Department of the SEP which requests and receives help from private enterprise, including the press, radio, and television, the army, normal schools, and school children. Its aim is to eradicate illiteracy by 1970. For purposes of the campaign, the nation has been divided in regions and intensive work has begun in four of these. The first phase of the campaign consisted in locating illiterates (there are nine million throughout the country) with the help of fifth and sixth grade school children whose role it was to persuade them to register at the literacy centers. Regular teachers are employed at these centers which offer a ten-month course. The primer uses the syllable approach, but it could conceivably be used with the word approach. Simple directions were given in *Excelsior*, a Mexico City newspaper, which printed a lesson a day, to use the primer with either approach.

Action to promote literacy among adults in *Guatemala* became regular and official in 1948 when the National Literacy Department was created. It set up evening schools which made about 3,000 adults literate in each ten-month course. Due to administrative instability, however, the illiteracy rate which was 65% in 1940 increased to 71% in 1950. Efforts are being made to cope with the problem, but funds from the national budget are not assigned to adult literacy work. Many private institutions set up literacy centers and the army also carries on some work. USIS produces a television literacy program in which the official eclectic primer *Juan* is used.

In *El Salvador* the illiteracy rate decreased by about 8% from 1950 to 1960. The Ministry of Education operated 400 literacy centers from 1961 to 1962 where some 14,000 people were made literate. In 1962 a National Campaign was launched with national budget funds by the Department of Fundamental Education. It was to last five years. Private institutions take part in the campaign and the Catholic Church operates radio schools. In 1962 there were 1,042 such schools which made 1,821 persons literate. These represent 85% of those enrolled. Literacy teachers receive short training courses. The primer, *Vamos a leer*, uses the word approach.

Campaigns against illiteracy began early in the twentieth century in *Honduras.* An intensive one was initiated in 1942 and technical assistance of foreign experts was sought. In 1944 Laubach gave a series of lectures and as a result, a primer *Aprendo a leer*, based on his method, was prepared with the assistance of Honduran teachers. In the same year another group under the direction of the Puerto Rican scholar Ismael Rodriguez Bou brought the technique of teaching fundamental education by means of motion pictures. Literacy work continued through the years. In 1950 the illiteracy rate was 64%; in 1960 it had gone down to 58%. In 1958 4,000 adults registered at literacy centers; 2,500 completed the course successfully. In 1963 not only had the numbers increased, but the percentage of students who dropped out or failed had lowered considerably: 10,200 registered and 9,790 completed the course successfully.

In 1959 a separate Basic Education Section was created within the Ministry of Education. Its professional staff has largely been trained at the CREFAL center in Pátzcuaro, Mexico. These professionals are responsible for the training of teachers who specialise in adult education. These are usually primary school teachers. In 1964 there were 132 assisted by normal-school students in forty-one adult schools in about half of the departments of the country. Recently a Venezuelan mission gave directions concerning literacy education and offered copies of its primer *Abajo cadenas.* Other primers employed are the above mentioned *Aprendo a leer* and *Mi mejor amigo*, published in 1962, which uses the sentence method.

In addition to the literacy work sponsored by the government, private agencies play an important role. The most important group is Popular Cultural Action, formed by priests, representatives from private enterprise and other individuals dedicated to fundamental education in the rural areas. A radio station, La Voz de Suyapa, is operated by this group. It started in 1961 with 17 schools and 306 students. By 1964 there were 500 schools with 8,000 students.

No government funds are assigned to adult education in *Nicaragua*. On the Atlantic there is a region which is sparsely populated, where communications are poor and several languages are spoken (Misquito, Zumo, and English). The Rio Coco Pilot Project for basic education was carried out by UNESCO in collaboration with a national commission of representatives from various ministries of the Nicaraguan government. It included teacher training, literacy work, and the teaching of Spanish. In 1959 it had 90 teachers, had established 90 schools, 45 literacy centers and 12 libraries.

In *Costa Rica*, adult literacy work had been in progress on a small scale for a number of years. In 1963 a ten-year campaign was organized by the Community Education and Development Division of the Ministry of Education. Permission was obtained from the University of Puerto Rico to adapt and print its literacy manual and set of five primers and readers for use in Costa Rica. The cost of the campaign is to be borne by the Ministry of Education (50%), CARE (30%), and the local communities (20%).

In *Panama* there are minorities who speak Amerindian languages and English. The illiteracy rate is 26%. In 1959 a campaign in adult literacy was begun. Evening schools were set up with primary school teachers in charge. From 1959 to 1963 about 21,000 adults had become literate as a result of the campaign.

2.1.2 *South America*

There had been no organized government effort to combat illiteracy in *Colombia* until 1960 when a CREFAL technician visited the country. As a result new scientific materials designed for adults were prepared. Sometime later, a National Service to Promote Literacy was established and short courses to train teachers were given to 13,000 persons. In 1963, 1,300 adult literacy centers were operating in Colombia.

The most important non-government literacy effort in Colombia is that of Acción Cultural Popular, ACP, organised by Monsignor José Joaqúín Salcedo in 1947. This represents an effort of the Catholic Church to raise the standard of living of the Colombian peasant by means of radio-schools. Monitors are trained to supervise the instruction; battery radios, blackboards, primers, notebooks, pencils, etc. are distributed free to each community. The teacher broadcasts a lesson at the appointed hour and the peasants, children and adults, assemble with the monitor at the radio school which is usually outdoors. Between 1954 and 1961 184,206 people were made literate this way. A very impressive film of the ACP program has been made by AID. The primer used by ACP, called *Cartilla de lectura*, uses the synthetic approach. It consists of forty-two lessons and seven supplementary reading lessons.

In *Venezuela* a campaign against adult illiteracy took place in 1946–48, but for the next ten years very little was done. In 1958 the Adult Education Division of the Ministry of Education initiated a new plan: People in the most densely populated areas were to be made literate first. These are also the regions which offer the best prospects of economic development. The people in sparsely populated regions are not likely to be made literate rapidly.

Non-professional teachers of the following types are engaged in the program: (1) 'literacy legions' consisting of students of fifth and sixth grades, secondary schools, normal schools, and universities; (2) 'civil legions', private individuals. Professional teachers act as advisors. Evening classes are offered at literacy centers. The eclectic primer *Abajo cadenas* (1948) and the reader *Leamos compañeros* are used.

Since 1942 there was a movement for adult literacy in *Ecuador* sponsored by two private organizations encouraged by Laubach: The Unión Nacional de Periodistas, UNP, a group of journalists in Quito; and a group which called itself Liga Ecuatoriana de Alfabetización, LAE (Ecuadorian Literacy League). The first group worked in the Andean and Eastern regions while the latter worked on the Coast. The UNP reduced illiteracy 9% in its area and LAE made about 67,000 people literate in ten years. In addition the army has carried on important literacy work within its ranks.

In 1962 the Ministry of Education created the Department of Adult Education and Literacy and thus assumed responsibility for adult education throughout the country. A plan was drawn up to undertake a campaign by stages as follows: (1) literacy, one year; (2) accelerated primary course, duration not yet established; (3) vocational training. While the first group is in Stage Two a new group will start with Stage One and the process is to be repeated as long as necessary. The plan was put in operation in April 1963 and there are as yet no available reports on the results.

Classes of some thirty students are held in the evening; the teachers are paid in-service teachers; the primer was specially prepared for the campaign. It is an eclectic primer, called *Ecuador* (1964), well suited for adult illiterates. In addition at least the following materials have been prepared:

GENERAL: *Plan nacional de alfabetización y educación de adultos* (1964), a description of the project.
Seis artículos sobre analfabetismo (1963)
Excellent newspaper articles by Fernando Valdenrama Martinez designed to awaken the interest of the educated classes.

FIRST STAGE: *Guía didáctica de la cartilla Ecuador* (1964)
A teacher's manual to go along with the primer.
Guía para la enseñanza de cálculo (1964)
A manual to teach arithmetic.
Agenda del alfabetizador (1964)

A manual which includes background material, programmes of study, directions to use the primer (same as the *Guía* above), guidelines in teaching geography, history, morals, civics, and hygiene.

SECOND STAGE: *Libro de historia* (1964)
Libro de geografía (1964)

In the *Guía didáctica* the author makes a reference to phonemes on page two, but he fails to point out the relationship between phonemes and graphemes. This author along with many other literacy experts is preoccupied with meaning and interprets reading as the acquisition of meaning from the written symbols without the intermediary step, language, which seems all important to the linguist.

1963 was declared 'literacy year' in *Peru* and the campaign which had started in 1958 was intensified. Its main characteristic seems to have been that employers with twenty employees or more were required by law to set up literacy courses. Teachers were primary school teachers, normal school students, and volunteers. The figures on Table 6, taken from the CREFAL report on Peru, reflect the size and aims of the campaign. No figures on actual results are available yet:

TABLE 6

Kinds of Centers	Number of Centers	Number of Literacy Workers	Number of Students Enrolled
Rented	4,000	4,000	120,000
Voluntary (ie. homes)	1,500	1,500	45,000
Civic service	Industry	70,000	140,000
TOTAL	5,500	75,500	305,000

It was expected that 300,000 adults would be made literate (Report to UNESCO-IBE Commission sent by the Ministry of Education) but from the above figures of enrolled students, this seems hardly probable.

The illiteracy rate has been lowered only slightly in rural areas in *Bolivia* while the absolute number of adult illiterates has actually increased (Table 7). The National Literacy Division of the Ministry of Education, in charge of adult literacy in urban areas, has no funds with which to operate. There is an almost complete lack of trained personnel in adult education and literacy.

Since 1952 the illiteracy rate in *Chile* has been 19.8%. It is caused by absenteeism and desertion at the primary school level. For this reason, the Ministy of Education maintains a permanent adult literacy service with 345 schools, a volunteer corps and four centers of fundamental education and community development. The schools make some 20,000 adults literate every year.

TABLE 7

Rural Population 15 Years and Over[7]

	Total	Literate	%	Illiterate	%
1951	1,202,139	135,010	11	1,067,129	89
1961	1,359,181	198,149	15	1,160,539	85

The illiteracy rate is 8.6% in *Argentina*. Illiterates are adult immigrants and people who have not finished primary school and have relapsed into illiteracy or who live in very remote and sparsely populated areas where primary schools are not provided. By Argentinian law, it is the duty of the State to establish schools for adults at factories, barracks, prisons, etc., wherever there are more than forty illiterate persons over fourteen of years age. It has not been necessary to organise literacy campaigns.

The report of the Ministry of Education and Religion of *Paraguay* to the UNESCO-IBE commission in 1964 states that the Ministry does not undertake any adult education projects. There are certain government-sponsored programs within the armed forces and in the prisons, and missionaries carry out some adult education work among some Indian groups. This report does not mention that in spite of the fact that 40.1% of the population is monolingual in Guaraní and 53.8% is bilingual in Guaraní and Spanish, Spanish is the only medium of instruction.

In 1951 the Department of Literacy and Adult Education was created in *Uruguay*. In 1962 it had sixty centres with 4,845 students.

Under the 1963–65 plan now current in *Brazil* it is hoped that persons between fourteen and eighteen years of age will be made literate at the rate of 1,150,000 per year. Volunteer teachers are to be used in this effort.

2.1.3 *Hispanic Caribbean*

Cuba is the country with the smallest percentage of illiterates in this hemisphere. In 1962 the population of Cuba was approaching seven million, the percentage of people ten years and older who were illiterate was 3.9. The number of illiterates has been drastically and dramatically reduced from 979,207 to 271,788 by means of an intensive country-wide campaign undertaken by the revolutionary government in 1961. The goals of the campaign were to teach the mechanics of reading and writing to every person older than fourteen and anyone under fourteen not attending school.

These goals were very nearly met. According to official reports 979,000 illiterates were located in 1961, 894,000 enrolled, 707,212 were made literate and 186,000 were unsuccessfully taught. It must be understood that in the context of this campaign literacy does not mean functional literacy, but only the equivalent of one year of primary school.

The Cuban literacy campaign is described in detail by Richard Jolly, a British economist, trained at Cambridge and Yale, who did research on the island in 1962. The campaign was organized by the National Literacy Commission formed with representatives from the Ministry of Education and the revolutionary organizations. A preparatory census started in November 1960 which attempted to locate and register all illiterates. Four kinds of literacy workers, making a total of 271,000, were involved in the campaign: (1) 'Brigadistas Conrado Benítez', about 100,000 young students given a short training course and sent out to rural areas in groups to work under the supervision of a teacher. (2) 'Alfabetizadores populares', 121,000 volunteers in the towns who taught people in their own neighbourhoods. (3) 'Brigadistas obreros Patria o Muerte', 15,000 workers who served as teachers with the understanding that their fellow workers would make up for their work in the factories. (4) School teachers, 35,000 professionals who served mostly as supervisors and administrators.

The approach which was followed was one of individual instruction, the ratio of students to teacher being about three to one. After a short training period the volunteers were transported all over the island equiped with their teacher's manual, *Alfabeticemos* and a primer, ¡*Venceremos*! Even peasants in the remotest corners of the island were approached. Great enthusiasm was displayed by all concerned. The number of people involved, close to a million, between instructors and pupils, is in itself remarkable. Two million copies of *Venceremos* and one million copies of *Alfabeticemos* were printed. In addition each *brigadista* was supplied with clothing and lamps and many illiterates given eye glasses. The organization required to mobilize so many people and so much equipment and to keep up the morale of the students and volunteers for the eight months which the campaign lasted is also remarkable. As for the quality of the results, those who were declared literate in December 1961 when the campaign came officially to an end, had no doubt mastered the mechanics of reading and writing. They passed a test which consisted of reading a short paragraph and writing a letter. The government realized that much more had to be done to bring the new literates to the level of functional literacy. Accordingly, *Seguimiento* (follow-up) courses were organized. The attendance in these courses in 1962 represents about one third of the new literates. This means that aside from the political gains made by teaching such large numbers of peasants and workers, about two thirds of them were in danger of relapsing into illiteracy unless the enrollment in the *Seguimiento* classes was increased.

¡*Venceremos*![8] is a 111-page primer prepared by the National Literacy Commission for the 1961 literacy campaign. Its format and presentation are excellent. The material is interesting and varied and suitable for adults. The method is eclectic. The primer consists of 15 units. A typical unit contains a photograph with an appropriate comment of two or three model sentences and a set of three lessons of 6 to 9 parts. The first part analyzes a word of one of the model sentences into syllables and presents other syllables that complete a pattern; the second and third present new words built out of known syllables and new sentences built out of known words; 4 is a fill-in exercise, 5 a dictation, 6 a writing exercise, while 7, 8, and 9 constitute a review. The grading of the material could have perhaps been improved if the relationship between phonemes and graphemes had been more clearly understood.

Alfabeticemos is a teachers' manual prepared by the same commission. It consists of five parts: a preface to the instructor, a list which relates the units of the primer to the topics of the manual, an orientation section which explains clearly and briefly how the primer is used; a series of topics for discussion and a vocabulary list. The topics section is the longest one. The vocabulary section explains terms used in the topics section and is not directly related to the words taught in the primer.

In 1952 a nation-wide literacy campaign was begun in the *Dominican Republic*. It aimed to eradicate illiteracy by 1958. Illiteracy was declared a crime and provisions were made to fine illiterates who did not attend the literacy centers. A word-approach primer called *Cartilla Trujillo de alfabetización de adultos* was prepared. According to Pacheco (1955), *La obra educativa de Trujillo*, there were 7,434 centers with 200,000 students registered in 1955, but he does not say how many people actually learned to read and write. On the other hand, a booklet put out by the campaign directors claimed that the illiteracy rate was 33.9 in 1957. The percentage given in Table 5 refers to census figures.

According to the report sent to the joint UNESCO-IBE Commission in 1964 by the Ministry after the end of the 'Trujillo Era', the task of making people literate had not been entrusted to very competent people. New plans were drawn up in 1962. At the time the report was written, promotion of literacy and adult education, under a program of unlimited duration, was entrusted to the Ministry, 70% of the certified teachers were engaged in adult literacy work and the Puerto Rican primers were being used.

An Adult Literacy Program was created in 1953 in *Puerto Rico*. It functioned under that name until 1960–61 when new regulations created a Program in Elementary Education for Adults. This program under the Ministry of Education is equivalent to primary school education. It aims to reduce the number of illiterates, including functional illiterates over ten years of age.

Classes are held in the afternoon and evening; the first three grades last five months and offer 130 hours of instruction and the last three grades last ten months and offer 260 hours. It was found that with a primary school teacher who has been trained in adult education methodology, an adult has to take sixty two-hour classes to learn the mechanics of reading and writing and that to achieve this end seventy-five to eighty classes have to be planned for. An adult should become an independent reader after 180 two-hour classes.

From 1953 to 1963 almost 300,000 people were enrolled, over 80,000 successfully completed the first grade, and over 13,000 finished the equivalent of primary school. In 1950 there were 526,154 adults ten years or older in

Puerto Rico; 24.7% of these were illiterate and 23.8% functionally illiterate. In 1960 the percentages had dropped to 12% and 20% respectively.

The present programme is described by Rafael Marcano Blanco (1963) and by Ismael Rodriguez Bou (1960) and in the Annual Report for the Fiscal Year 1963–64. Rodriguez Bou points out some of the false assumptions in the original proposal to the Puerto Rican Legislature in 1960, but considers that the Program has been a very successful one. His report is very detailed and he makes valuable suggestions for the improvement of the programme.

The materials that have been prepared in Puerto Rico for the government-sponsored adult education programmes include *Manual para la enseñanza de lectura y escritura a adultos analfabetos* (1956), a teacher's manual to be used with the primer *¡A la escuela!* which uses the sentence approach; a series of four readers; teacher manuals for each grade including such subjects as social sciences, arithmetic, Spanish grammar and English; booklets on geography, hygiene, civics, elementary science, etc. The primers and readers deal with subjects which seem appropriate for adults; the manuals are very thorough and should adequately guide teachers.

2.2 *Non-Hispanic Caribbean*

The first attempt to teach literacy in Creole in *Haiti* was made by Christian Beaulieu in 1939. In 1943 McConnell, a Protestant missionary, invited Laubach to visit Haiti and succeeded in interesting the Ministry of Education in his literacy work. For a number of years the writing system proposed by McConnell with minor revisions by Laubach was the only one used. In 1948 the Haitian government asked UNESCO to set up a pilot project in adult education at Marbial. Literacy was one of the components of the project and it was decided that a linguist should be consulted as to the appropriateness of the existing orthography. Robert A. Hall, Jr. endorsed the McConnell-Laubach orthography in a series of articles in the *Nouveliste* and used it in his study of French Creole. This orthography was used in the short-lived UNESCO project and in some Protestant publications. In 1947 Charles Ferdinand Pressoir proposed some changes in the orthography. Faublas adopted them for an adult education program, and the revised orthography came to be called the Faublas orthography. In 1961 adult education became the responsibility of the Office Nationale d'Education Communautaire, ONEC. It uses this revised orthography in all its Creole publications, and it may thus be considered official.

ONEC, a dependency of the Ministry of Education, started its work in 1962 with extremely limited financial resources. Its goal is to eradicate illiteracy by concentrating on separate areas of the country in eleven annual stages. Adults are taught to read and write in Creole for eight months as a first step in their acquisition of French, which is then taught for two years. Thus far, ONEC claims to have reduced illiteracy by 8% in the regions where it has worked.

For a review of the literature on the language situation and the orthography questions in Haiti, see Hall (196?). The orthography question is further discussed by Paul C. Berry in a mimeographed memorandum to AID in which he maintains that since French will no doubt continue to be the prestige language and the language that people want to learn because it is a language of wider communication, Creole should be used as a tool for the eventual acquisition of French. He argues that the social question is more important than phonemics, and that French spelling conventions are capable of unambiguous representation; he proposes a new orthography which represents the phonemes of Creole in a consistent way such that there would be some problems for the writer but none for the reader and which would facilitate the passage from Creole to French.

In *L'Alphabetisation en Haïti* (1965), E. C. Paul describes the work of ONEC, of which he is the technical director, and the attempts which had previously been made in order to cope with the illiteracy problem. The book, which seems to be addressed to the Haitian elite who have thus far succeeded in maintaining the status quo, proposes to attack the illiteracy problem at the primary school level as well as at the adult level and to use Creole as a means of achieving literacy in French at all levels.

Among the publications of ONEC the following are important: *Guide National d'Alphabétisation des Adultes*, a booklet explaining how every Haitian can cooperate in the fight against illiteracy; *Liv pa nou*, a thirty-lesson primer employing the synthetic method; *Nap li*, a twelve-lesson reader; *Pri iv-la gnou Goud*, an elementary book in history, geography, civics, hygiene, and arithmetic; *Parlons français*, a short beginners' book for speakers of Creole. Charles Ferdnand Pressoir has prepared a French textbook for speakers of Creole: *Méthode de Français Oral.*

Around 1950 it was estimated that *Jamaica* and its dependencies had from 220 to 270 thousand adult illiterates, fifteen years or over, constituting from 25 to 30% of the adult population (900,000) out of an estimated total of 1,417,000. The report made by the Caribbean Commission to the 1955 West Indian Conference stated that about 40% of the population was probably illiterate at the time.

In 1950 the Social Welfare Commission started its work on literacy. The Commission, which began as a private organization, is today financially supported by the government, but it is largely autonomous. It works on community development chiefly in rural areas. Efforts are made to obtain the collaboration of churches and various organisations in the action against illiteracy. Teachers are voluntary workers given some training by the Commission. No statistics on the results thus far obtained seem to be available.

In 1950 it was estimated that between 20–25% of the adult population of *Trinidad and Tobago* was illiterate. At the time of the 1960 census 11.4% of the population had no formal education and 12.9% had roughly five years or less. There has never been a literacy campaign, but there have been five-year development plans which include the provision of adequate facilities for the basic education of children and adults.

The estimated percentage of adult illiterates in *British Honduras* in 1950 was 20–25%. According to recent official estimates this figure has been lowered to 6.5%. An adult literacy program using the Laubach method is operating.

Illiteracy in the British Caribbean is not only the result of an insufficient number of schools and poor attendance records, but of the lack of reading materials; people who have attended school very often forget what they have learned. There are very few organised efforts to combat illiteracy and very little information is available. Statistics are untrustworthy, population figures often being estimates rather than actual census figures. Language data is very rarely included. The available information is summarised in Tables 1 and 3.

No adult literacy literacy programmes have been reported for the French Areas.

A new Department of Adult Education was set up in *Surinam* in 1958. In the *Netherlands Antilles* illiteracy is rapidly decreasing. In 1960, the percentage of illiterates, defined, in this case, as those who have completed less than three grades of elementary school, was 10.7% in Curaçao. This is the largest and most important island. As may be seen in the following Table 8, the illiteracy rate is much lower among the younger section of the population than among the older people. This means that there should soon be no illiteracy problems in the Netherlands Antilles.

TABLE 8

Percentage of Illiterates Divided in Age-Groups (1960)[8]

	15–19	20–24	25–29	30–39	40–49	50 and older
Curaçao	2.6	3	3.5	4.5	10	29.3
Aruba	4,5	8	8.5	9	21	42.5
Bonaire	3			6	15	48
		15–29		30–49		50 and older
St. Maarten		10		21		45
St. Eustatius		7		18		44
Saba		7		24		62

Literacy in Indigenous Groups

3.1. Every country strives to educate its people and considers literacy a means to this end. In most countries the official language is the only medium of instruction, but in some, literacy in minority languages is considered a bridge for the acquisition of the official language. It is clearly easier to have universal primary education in a monolingual country than in a bilingual one. In America the official languages, all European, are Spanish, Portuguese, French, Dutch, and English. There are three other types of languages: immigrant, creole and indigenous. Immigrant languages are spoken by significant minorities in some countries of the non-Hispanic Caribbean and, to a certain extent, in Central America, Argentina, and Brazil. Argentina, as we have seen, tries to cope with the problem, and immigrants are considered to contribute to a large degree to the increase of the illiteracy rate. In the Creole-speaking areas illiteracy is directly related to the linguistic situation. The indigenous languages constitute the most important group of non-official languages in the area under study. Table 9 lists the languages spoken and the literacy programmes and campaigns carried on in each language group.

There are no reliable statistics on the number of speakers of Indian languages.

TABLE 9*

Languages and Adult Literacy Programmes and Campaigns

	LANGUAGES			PROGRAMMES AND CAMPAIGNS		
	Off. lg.	Major lgs. (10% of pop. or over a million)	Other significant lgs.	Official	Major	Other
MEXICO AND CENTRAL AMERICA						
Mexico	Sp.	–	20 Amerindian	National campaign 1965-	–	Govt., SIL
Guatemala	Sp.	Quiché	16 Amerindian	Private efforts	Govt., SIL	Govt., SIL
El Salvador	Sp.	–	4 Amerindian	National campaign 1962- Catholic Church	–	
Honduras	Sp.	–	11 Amerindian	Govt. program 1959-ACP	–	
Nicaragua	Sp.	–	3 Amerindian English	Rio Coco Pilot Project	–	
Costa Rica	Sp.	–	English	National campaign 1963-	–	
Panama	Sp.	–	English 3 Amerindian	Govt. program 1959-	–	
SOUTH AMERICA						
Colombia	Sp.	–	9 Amerindian	ACP 1947- Govt. prog. 1960-	–	Govt.
Venezuela	Sp.	–	8 Amerindian	Govt. program 1958-	–	Govt.
Ecuador	Sp.	Quechua	6 Amerindian	Govt. campaign 1963-	1956 Andino prog.	SIL
Peru	Sp.	Quechua	Aymara 30 Amerindian	1963 'literacy year'	SIL Govt.	SIL Govt.
Bolivia	Sp.	Quechua Aymara	60 Amerindian		1963 Acción Andina	SIL

Languages and Adult Literacy Programmes and Campaigns

	LANGUAGES			PROGRAMMES AND CAMPAIGNS		
	Off. lg.	Major lgs. (10% of pop. or over a million)	Other significant lgs.	Official	Major	Other
Chile	Sp.	–	5 Amerindian	Govt. prog.	–	
Argentina	Sp.	–	12 Amerindian Italian and other immigrant languages	Compulsory programs	–	
Paraguay	Sp.	Guaraní	Several Amerindian			
Uruguay	Sp.	–	Portuguese	Govt. prog. 1951-	–	
Brazil	Port.	–	Many Amerindian German	Govt. campaign 1963-1965	–	SIL
HISPANIC CARIBBEAN						
Cuba	Sp.	–	–	1961 National Campaign	–	–
Dominican Rep.	Sp.	–	–	Govt. campaign 1952-1957 Govt. Prog. 1962-	–	–
Puerto Rico	Sp. Eng.	English	–	Govt. Prog. 1953-		–
NON-HISPANIC CARIBBEAN						
Haiti	Fr.	French Creole	–	Govt. and others	Govt. and others	–
BRITISH AFFILIATED						
Jamaica	Eng.	Jamaican English	Immigrant languages	Jamaica Welfare Commission 1950-		
Trinidad and Tobago	Eng.	French Creole	Immigrant languages			
Bahamas	Eng.	–	–		–	–
Bermuda	Eng.	–	–		–	–
British Guiana	Eng.	–	Several Amerindian Immigrant languages		–	
British Honduras	Eng.	Spanish, Maya	Carib	Laubach		
British Virgin Is.	Eng.	–	–		–	–

Barbados	Eng.	–	–		–	–
Turks and Caicos	Eng.	–	–		–	–
Leeward Islands	Eng.	–	–		–	–
Windward Islands	Eng.	French Creole	–			–
FRENCH AREAS						
Guadeloupe	Fr.	French Creole	–			–
Martinique	Fr.	French Creole	–	Few govt. programs in 1945		–
French Guiana	Fr.	French Creole	Several Amerindian			–
DUTCH AREAS						
Surinam	D	Sranantongo Hindi-Urdu Javanese	English, Carib, Aucan, Saramakan	Govt. programs		Govt. programs
NETHERLANDS ANTILLES						
Curaçao Aruba Bonaire	D	Papiamento	–			–
Saba St. Eustatius St. Maarten	D	English	–			–

* A line means that there are no languages of that type and therefore no campaign or program in the country. A blank space means we have no report on a program or campaign.

We do not know how many languages there are. Most countries do not include language data in their censuses. Some countries have statistics on the number of Indians, but 'Indian' is defined in different ways so that the figures are not comparable even where they exist and are seldom an accurate reflection of the language situation. Where 'Indian' is defined culturally, we may have speakers of Spanish who are called Indians; where ethnically, monolingual speakers of an indigenous language may be counted as mestizos as in Paraguay. Since Indians are associated with low prestige their numbers are, consciously or unconsciously, minimized by census respondents and government officials alike.

The figures in Table 10 are taken from the best available sources, *La población indígena y el mestizaje en América* (1954), by Angel Rosenblat, and *Guía de la Población Indígena de América* (1964), a publication of the Inter-American Indianist Institute. They are included here in order to give a vague approximation of the number of speakers of Indian languages and an idea of the number of Indian groups large enough to merit literacy programmes geared to their needs.

TABLE 10

Amérindian Population

	Percentage of Indian population 1950	Total estimate 1960	One million or over	Thousands					
				500–1000	250–500	100–250	50–100	10–50	Less than 10
Guatemala	55%	1,497,261			Quiché 339	Mam 178 Cakchiquel 167 Kekchí 153	Pocomam	12 groups	
Bolivia	55%	2,450,000	Quechua 1,500,000	Aymara 850			About 60 groups belonging to 15 linguistic families		
Peru	40%	3,121,071 excludes jungle, 1954 est: 453,000	Quechua 3,200,000	Aymara 300				About 30 groups	
Ecuador	40%	Over one million non-acculturated	Quechua					Jivaro Yumbo	
British Honduras	23%	5,000							Yucatec Kekchí Carib Chol
Mexico	20%	2,447,609			Nahuatl	Mixteco Zapoteco Otomí Totonaco Maya	Tzeltal-Tzotzil Mazateco	Mixe Chol Huasteca Mazahua Chinanteca Tlapaneca Tarasco	Chatino Tarahumara Amuzgo Zoque

El Salvador	20%	100,000		Pipil		Nahua Quiché Cakchiquel	
Honduras	6%	107,800		Misquito			About 10 groups
Panama	6%	60,000			Guaymí Cuna		Chocó
French Guiana	6%	2,500					Carib Arawak others
British Guiana	4%	9,292					Carib Arawak others
Nicaragua	4%	43,000			Misquito		Sumo Rama
Paraguay	3%	40,000	This percentage does not reflect the linguistic situation. According to 1950 census figures 40.1% of the population is monolingual in Guaraní, 53.8% bilingual in Guaraní and Spanish, and 4.7% monolingual in Spanish.				Groups belonging to 7 linguistic families
Venezuela	2%	98,682 (1950)			Guajiro		About 35 groups
Chile	2%	240,000 (including mestizos)				Quechua Aymara Uru	
Surinam	2%	4,500					Carib Arawak others
Colombia	1%	200,000			Guajiro Chibcha groups		Carib Quechuan others

(continued)

TABLE 10 *(continued)*

Amérindian Population

	Percentage of Indian population 1950	Total estimate 1960	One million or over	Thousands					
				500–1000	250–500	100–250	50–100	10–50	Less than 10
Argentina	Less than 1%	130,000							Mataco Chorotí Chiriguano Quechua Colla Araucano Tehuelche Macobí Toba
Costa Rica	Less than 1%	7,200							Bribri Boruca Guatuso
Brazil	Less than 1%	1,200,000	Some 100 tribes in the Amazon area and some 100 tribes in other areas; census takers do not reach remote areas where the Indians live.						

The sixteen Latin American countries which have an Indian population (Uruguay, Cuba, the Dominican Republic, and Haiti have none) have ratified the creation of the Inter-American Indianist Institute (3.2). This means that every government has shown some concern with Indian well-being and a desire to protect him and incorporate him into the mainstream of national life.

3.2. In *Mexico* cultural missions were first established among Indian groups in 1921. Their aim is to educate people in community development, and literacy was one of the components of the programs they set up. A history of these missions and of other institutions which have been created with the welfare of the Indian in mind, is found in Gonzalo Aguirre Beltrán (1953), *Teoría y práctica de la educación indígena.*

Everyone who has been concerned with education in Mexico has, in one way or another, been concerned with Indian education. There has been much experimenting, and policy has changed from time to time, fluctuating between the extreme Hispanicist view – that all Mexicans are equal, that everyone, both in urban and rural areas, should be entitled to the same opportunities and taught the same subjects in the national language, that Indians should be encouraged to forget their languages as quickly as possible, and that literacy means *castellanización*, – to that of the cultural relativist who is concerned with the poverty and exploitation of the Indian and wants him at the same time to preserve his language and values and to live within Western culture. Bureaucratization was seen by President Cárdenas as a danger that lurked behind every effort to improve the lot of the Indian, and this remains a major problem.

In 1940 the first Interamerican Indianist Congress took place in Pátzcuaro and as a result the Interamerican Indianist Institute was created with participation of all the American republics which have an Indian population. Mexico had taken the lead in Indian affairs in the international field. But in 1946 with a change of administration, the Departamento de Asuntos Indígenas, which had been founded by Cárdenas and which had been active at the time of the Pátzcuaro Congress, disappeared and its domestic functions were taken over by the División General de Asuntos Indígenas of the SEP. On the occasion of the Second Interamerican Congress, the National Indianist Institute (Instituto Nacional Indigenista, INI) was created. Since then there have been two government agencies in charge of Indian education, the SEP, which until recently maintained regular primary schools and used Spanish as medium of instruction everywhere in the country, and the INI, which at present has centers of fundamental education in the following areas:

Tzeltal-Tzotzil, Chiapas, with sub-center at Huáutla de Jiménez
Tarahumara, Chihuaha
Mixteca de la Costa, Oaxaca
Mixteca Alta, Oaxaca
Cora-Huichol, Jalisco
Tlapaneca, Guerrero

Native languages are employed as a medium of instruction at all centres, and literacy primers in the indigenous tongues, prepared by Mexican linguists and by Summer Institute of Linguistics personnel, are used in all the centres except the one in the Cora-Huichol area.

The SEP decided in 1963 to adopt as national policy that literacy in the native language be the first step toward literacy in Spanish and planned to publish a series of national primers in Mixteca de la Costa, Otomí, Maya, and Tarasco. In 1964 it initiated a National Literacy Program in Indigenous Languages under the direction of the noted Mexican ethnologist Angélica Castro de la Fuente with the collaboration of linguists of the Summer Institute of Linguistics.

Among the earliest and most significant projects in modern Indian education is the Tarasco Project, which was an experiment in applied linguistics under the direction of Morris Swadesh. The project had these characteristics: Literacy in the vernacular preceded literacy in Spanish; the vernacular was used to teach arithmetic and other subjects; young native bilinguals were trained as teachers. Instead of taking a year to learn to read a language which they did not understand, children would learn to read Tarasco in three or four months and then proceed to learn to read Spanish easily. The first phase of the project was successful, but lasted only a year (1939–40) because of a change in administration; it was continued later and again terminated after a few years. It is described in UNESCO, *The Use of Vernacular Languages in Education* (1953), 77–86.

Julio de la Fuente describes other projects and discusses the work of the INI and the role of anthropology in Indian education in *Educación, antropología y desarrollo de la comunidad* (1964). In 'La alfabetización en idiomas indígenas y los promotores culturales' *A William Cameron Townsend* (1961) 231–49, Angélica Castro de la Fuente describes the work of the Instituto de Alfabetización para Indígenas Monolingües. Her detailed description of the Otomí project is of particular interest.

In connection with literacy work among indigenous groups in Mexico it should be pointed out that linguists and ethnologists have been involved in many ways. The role of the Summer Institute of Linguistics has been significant. The role of the Instituto Nacional de Antropología e Historia and of its School of Anthropology has also been significant. These Mexican institutions carry on research and train ethnologists and linguists who are capable of contributing to the literacy effort when called upon by the government.

Literacy among the large Indian population of *Guatemala* is the concern of the Instituto Indigenista Nacional, a research centre, which studies and tries to solve the problems of rural areas, particularly those with numerous indigenous groups, either directly or in collaboration with other institutions such as the Summer Institute of Linguistics. It publishes a periodical called *Guatemala Indígena* which often features articles on literacy. A statistical study of illiteracy in Guatemala, 'El analfabetismo en Guatemala' was prepared by Jorge Arias B. in

Guatemala Indígena (1962). A very detailed survey of the problem of illiteracy and of the attempts that have been made to solve it is made by Victor Manuel Valverde, 'El analfabetismo en Guatemala' in *Guatemala Indígena* (1962).

The Summer Institute of Linguistics has also cooperated in the preparation of official alphabets for thirteen important indigenous languages. These are found in an off-print of the *Diccionario Geográfico de Guatemala* as *Alfabetos oficializados de trece principales idiomas indígenas de Guatemala* (1962).

The indigenous population in *Colombia* is very small. The Division of Indian Affairs of the Ministry of the Interior has run eight programs among eight different groups.

In *Venezuela* a campaign has recently been carried on among the Guararunos with the collaboration of a group of Catholic missionaries. The Comisión Indigenista of the Ministry of Justice also concerns itself with Indian literacy: In 1958 and 1959, for instance, it published excellent Guajiro primers prepared by the Peruvian linguist Martha Hildebrandt.

Indians constitute at least one third of the population in *Ecuador*. The largest group is the Quechua group. Even though not all Indians are monolingual, the language problem is an important one which has not yet been faced by the government in any systematic way, although there have been pilot projects in basic education, notably the Andino Program (1956) where several international organisations participated.

The large number of speakers of Indian languages is one of the greatest problems in education in *Peru*, although it had been the practice, until very recently, to minimise its importance. An experiment to teach monolingual Quechua children to learn Spanish by audio-lingual methods during the pre-primary year is being carried on jointly by the Ministry of Education and Cornell University at the Quinua school in the Department of Ayacucho. The project director is Donald F. Solá and the director of the experiment is Florián Luque, a Bolivian linguist trained at Cornell. Quechua is used as a medium of instruction, and special dialogue materials have been prepared. The control group is taught in Spanish in the traditional way. The experimental group was progressing more rapidly than the control group in the learning of Spanish, reading, writing, and arithmetic according to the progress reports of the experiment.

The Ministry of Education has been carrying on literacy programs in the jungle area with the cooperation of the Summer Institute of Linguistics for twelve consecutive years. One hundred sixty schools have been established among twenty-one different tribal groups. A training centre for native bilingual teachers has been operating since 1953 at Yarinacocha. The centre, its history, and its role are briefly described in *El XII curso de capacitación para maestros bilingües de la selva y el fenómeno de cambio*, a speech made by Darío Gutierrez in 1964. A technical description of the programme was presented by Gamaniel Arroyo Ponce and Donald Burns at the Fifth Interamerican Indianist Congress (1964).

Recently the bilingual program has been extended to the Highlands where a series of Quechua primers is being used experimentally. Audio-lingual Spanish materials are also being tried. It is hoped that the large number of Quechua speaking children in Peru will soon benefit from the same type of bilingual education which has been proved successful in the experimental areas and which has only been available to very small groups up to now.

The Bolivian education code states that the peasantry and the working class must be incorporated into the stream of national life by means of large-scale projects in literacy and fundamental education, but none have been initiated up to now. In 1963, a National Plan for Rural Development was operating under the administration of a joint committee with the participation of several ministries and UNESCO through Acción Andina. This project insists upon the use of the vernacular as medium of instruction and as a bridge for eventual learning of reading and writing in Spanish. But it affects a very small sector of the rural population.

The Literacy Work of International and Private Organisations

4.1 *International organisations*

Among the international organisations working for the spread of education in the Americas UNESCO and OAS are the most important. It might also be appropriate to mention here the work of the United States Agency for International Development, AID. It sponsors civic action and teacher education projects in Latin America which may at times be related to literacy. Directly related projects are carried on in Guatemala where there is a literacy adviser and AID has paid for the production of materials, and in Colombia where it has helped purchase TV equipment.

OAS sponsors relevant conferences, research, and publications and sometimes is one of the joint sponsors of particular programs such as Andino, mentioned above.

But UNESCO is the most influential as well as the most active of the international organisations engaged in literacy work. It has been concerned with the problem of illiteracy since its first session in 1946. Its activities include pilot projects in literacy and adult education, research projects, evaluations of national literacy projects, technical advice, and training of experts. UNESCO sponsors an important training centre in fundamental education at Patzcuaro, Mexico: Centro Regional de Educación Fundamental para el Desarrollo de la Comunidad en América Latina, CREFAL. Some of the UNESCO publications which have bearing on our subject have already been mentioned. Others are listed in the bibliography. They do not, by any means, reflect all of UNESCO's activities. Very often it is only one of the sponsors in joint development programmes which have literacy as a component and which are described in reports which are not easily available.

In December 1961 the General Assembly of the United Nations adopted a resolution on literacy and asked UNESCO to make a survey of the situation with the object of eradication of illiteracy throughout the world. UNESCO studied the planning, organisation, and execution of programmes for the eradication of illiteracy. A questionnaire was sent out to member states and its results, 'A Survey of Illiteracy' in the mimeographed document *World Campaign for Universal Literacy* (1963), reveal that there are no adequate data on the extent of illiteracy and that for the time being the 1957 estimates in the UNESCO publication *World Illiteracy at Mid-Century* (1957) are still the only available figures in many cases. In 1962 UNESCO experts met in Paris and prepared 'Recommendations for National Literacy Programmes', published in the same mimeographed document. These recommendations deal with adult literacy (although it is, of course, recognised that universal primary schooling is basic to the eradication of illiteracy) and with the economic aspects of a world campaign.

In December 1962, as a reply to the General Assembly, UNESCO declared its readiness to promote a world campaign for universal literacy during the Development Decade. It seemed as though a massive world wide campaign was about to start, but recently UNESCO'S position has become cautious and realistic. A selective, rather than a massive approach, has been decided upon. UNESCO research teams are visiting prospective pilot areas, among them Ecuador.

4.2 *Private organisations*

4.2.1. There are many private organisations which are involved in literacy work. Some of these operate in wide areas and are supported, or at least encouraged, by the national governments. Their work has already been mentioned. Many others are local and limit their action to smaller areas. Many of them are inspired by religious motives and sometimes they carry on work in more than one country. Among these the most important is the Summer Institute of Linguistics whose work is described below. There are Catholic missionaries among indigenous groups in every Latin American country, and Protestant missionaries, many Evangelical, and often with United States connections, in several countries. The Evangelical Conference of Churches, for instance, prepared a primer which the Brazilian government adopted and of which four million copies have been printed.

4.2.2. The Committee for Aymara Literacy and Literature in Bolivia is an interdenominational committee of Protestant missions. It runs a programme in literacy education for adults using its own bilingual Aymara-Spanish primer. Recently it has begun to work with Aymara children as well.

4.2.3. The Laubach Literacy Fund, founded by Frank Laubach, originator of the 'each one teach one' concept,[10] at present has programmes in Mexico, Guatemala, Colombia, Ecuador, and Brazil. It has prepared charts, primers, readers, teachers' guides, etc. Laubach methods are often used by other organisations. For instance, the Peace Corps sponsors a literacy program in a prison in Bogotá which is part of a prison reform project, and Laubach literacy methods are used.

4.2.4. Since 1942 the Committee on World Literacy and Christian Literature of the National Council of Churches has been sponsoring adult literacy programs in connection with the Evangelical churches in Latin America. The organisation called ALFALIT came into being in 1962. Its headquarters are in Alajuela, Costa Rica. It prepares literacy materials, distributes a newsletter and holds workshops for the training of literacy workers. Workshops have now been held in Honduras, Nicaragua, Costa Rica, Panama, Bolivia, Chile, and the Dominican Republic.

4.2.5. The Summer Institute of Linguistics, SIL, is a non-denominational organisation which is primarily concerned with translating the Bible into many languages. Besides their well known contributions in descriptive and theoretical linguistics and their work in the training of linguists in the United States and abroad, SIL members prepare primers, readers, and other materials related to literacy and fundamental education. SIL has programs involving literacy in Mexico, Guatemala, Honduras, Colombia, Ecuador, Peru, Bolivia, and Brazil under the auspices of the government agencies which are in charge of Indian education. It is engaged in government sponsored experiments in bilingual education in several countries. The most important of these is the Peru program which has already been mentioned (See 3.2). The Ecuador programme, which is similar, started in July 1963 with ten bilingual Indians from four tribal groups attending a teacher training course which is planned for five or six years. The prospective teachers are trained for three months; then they go back to their community to teach under technical supervision for eight months. Their training includes administration of the school, use of teaching materials, and courses in Spanish, history, geography, public health, agriculture, civics, etc. There are now seventeen schools with twenty bilingual teachers and a total attendance of 363 students. The children are taught in their native language until they are ready for the transition from their mother tongue into Spanish.

In Mexico, the members of SIL have been active in the preparation of materials for many government-run literacy programs. The materials may be published by the SEP or the INI and the authors are not involved in the actual teaching once the programs get under way. Max Lathrop has worked in the official Tarasco project, but has also been active among the Tarascos on his own. Ethel Wallis and Nancy Lanier developed the primer for the Otomí which at times has been officially used. It was later revised (1963) by Iris Wares who also wrote a workbook. These were published by the SEP. Ethel Wallis and Ellen Carlson collaborated in the preparation of the Tarahumara primer used by the INI. Iris Wares wrote the SEP Maya primer with the help of Moisés Romero, a Mexican linguist. Dow F. Robinson, Iris Wares, and Lois Robinson wrote materials for the Nahuat of Puebla and the Nahuatl of Northern Veracruz (1962–64).

In Guatemala SIL has literacy programs in eleven Indian groups and it is expected that a programme of bilingual schools will soon be started in cooperation with the Ministry of Education.

The following list from the 1964 Peru SIL *Bibliography* is indicative of the amount of literacy materials which have recently been produced in Peru in Spanish and thirty indigenous languages:

Basic primers	214
Advanced primers	49
Readers	6
Texts in religion and morals	13
Texts in nature studies and civics	33
Texts in arithmetic	64
Orthography manuals	56
Hygiene manuals	13
Oral Spanish textbooks	3
Teachers guides	4
Materials for training programme in bilingual schools	5
Total	460

Table 11 provides a summary of literacy materials in indigenous languages prepared by SIL up to the time of the publication of its 1964 *Bibliography*. Authors' names are omitted in the table. In it we can see that SIL linguists had prepared literacy materials in thirty-two languages (some of them requiring different treatment because of dialect differences) in forty-nine communities in Mexico; ten in Guatemala; one in Ecuador; twenty-three in Peru; six in Bolivia; five in Brazil. The methods for preparing the primers are described in Sarah C. Gudschinsky (1962) *Handbook of Literacy* (Rev. ed.). The primers follow the approach best suited to the language. For instance, the word approach is used in the Mazatec primer, the sentence approach in the Zapotec, the syllable approach in the Mixtec, but the psychophonemic method, developed by Townsend (See section 5 below) is the most commonly used in the SIL primers.

Technical Literature

Literature on linguistics applied to literacy in Latin America and the Caribbean is rather scanty. Besides the works which have already been mentioned, we note the following dealing with the applications of linguistics to literacy or describing certain literacy projects in which linguists have had a major role in analyzing the sociolinguistic situation, the languages and writing systems, in preparing materials, training teachers, or supervising the actual teaching process: Gudschinsky (1964), 'Techniques for Functional Literacy in Indigenous Languages and

TABLE 11

Literacy Materials in American Languages Prepared by the Summer Institute of Linguistics

Language	Family	Pre-primer	wBasic primers							Read-ers	Num-ber book	Other
			1	2	3	4	5	6	7			
MEXICO												
Amuzgo	Mixtecan	x										
Chinanteco	Chinantecan											
Lalana			x									
Ojitlán			x	x								
Palantla			x									
Yolox			x									
Chol	Mayan		x	x	x	x						
Chontal de Oaxaca	Hokan		x									
Chontal de Tabasco	Mayan											2
Cora	Utoaztecan		x									
Cuicateco	Mixtecan		x	x	x	x						
Huasteco	Mayan		x									
Huave	Huave											x
Huichol	Utoaztecan	x	x	x	x					x		
Ixcateco	Popolocan		x									
Lacandón	Mayan		x	x	x						x	x
Mazahua	Otomí	x	x	x	x	x						
Mazateco	Popolocan											
Highland			x	x	x	x	x	x	x			5
Jalapa de Diaz			x									
Soyoltepec			x	x	x	x	x	x	x			3
Mixe	Zoque											
Coatlán			x	x							x	x
Totontepec			x									
Mixteco	Mixtecan											
Lowland		x	x	x	x	x	x	x				
S. Esteban			x	x	x	x						
S. Miguel		x	x							2		
S. Tomás												x
Nahuat	Utoaztecan		x	x								
Otomí												
Eastern			x	x	x							
Mezquital		x	x									x
State of Mex.			x	x								
Tenango			x	x	x						x	
Pame	Otomí		x	x								
Popoloca	Popolocan	x	x	x	x	x	x	x	x			x
Seri	Hokan		x	x	x	x					x	x
Tarahumara	Utoastecan		x	x	x							x
Tarasco	Tarascan									4		
Tepehua	Totonacan		x	x	x							
Tojolabal	Mayan		x	x	x	x	x	x	x			2

TABLE 11 *(continued)*

Language	Family	Pre-primer	Basic primers							Readers	Number book	Other
			1	2	3	4	5	6	7			
Totonaco	Totonacan											
Northern			x	x								
Sierra			x									
Trique	Mixtecan		x	x	x							
Tzeltal	Mayan		x	x	x	x						
Tzotzil	Mayan											
San Andrés			x	x								
Zinacantan			x	x								
Yaqui	Utoaztecan		x									
Zapotec	Zapotecan											
Isthmus			x	x	x	x						22
Sierra Juarez			x	x	x	x	x	x	x			2
Villa Alta												x
Zoque	Zoquean		x									
GUATEMALA												
Achí	Mayan		x									
Aguacateco	Mayan		x	x								x
Cakchiquel	Mayan		x									
Chuj	Mayan		x	x								
Ixil	Mayan		x									
Kekchí	Mayan		x	x								
Mopán	Mayan											x
Pocomchí	Mayan		x	x	x	x	x			2		
Quiché	Mayan		x									
ECUADOR												
Quichua	Quechua-Aymaran		x									
PERU												
Aguaruna	Jivaroan		x	x	x	x						
Amahuaca	Central Panoan		x	x								
Amarakaerí	Uncl.		x	x								
Amuesha	Uncl.		x	x	x	x	x	x				x
Arabela	Zaparean		x									
Bora	Huitotoan		x									
Campa	Arawakan		x	x	x	x	x	x				
Candoshi	Zaparoan		x	x	x							
Capanahua	Central Panoan		x	x	x	x						
Cashibo	Central Panoan		x	x	x	x	x	x				x
Chayahuita	Capanahuan		x	x	x							
Cocama	Tupian		x	x	x	x	x					4
Culina	Arawakan		x	x	x							
Huambisa	Jivaroan		x									
Muinane	Huitotoan		x	x	x	x	x	x				

TABLE 11 *(continued)*

Language	Family	Pre-primer	Basic primers							Readers	Number book	Other
			1	2	3	4	5	6	7			
Machiguenga	Arawakan		x	x	x	x	x	x				3
Ocaina	Huitotoan		x	x	x	x	x					
Orejón	Western Tucanoan		x	x	x							
Piro	Arawakan		x	x	x	x	x	x	x		x	73
Quechua	Quechua-Aymaran		x	x								
Shipibo	Panoan		x	x	x	x	x					
Ticuna	Uncl.		x	x	x							
Yagua	Peba-Yaguan		x	x	x	x	x	x				
BOLIVIA												
Aymara	Quechua-Aymara		x	x	x							
Baure	Arawakan		x							x		
Chacobo	Panoan		x	x	x							
Chipaya	Macro-Mayan		x									
Guaraní	Guaranian		x									
Sirionó	Guaranian									4		
BRAZIL												
Apinaye	Ge		x									
Hishkaryana	Carib		x									
Kaingang	Ge		x	x								
Kaiwa	Tupí-Guaraní		x	x	x	x						
Satare	Tupí-Guaraní		x	x								

National Languages', discusses the contributions of linguistics to the teaching of oral and written control of the national language to speakers of indigenous languages or substandard varieties of the national language. Swadesh (1964), 'El impacto sociológico de la enseñanza en lengua vernácula', deals with recent projects sponsored by the Mexican government to teach literacy in the vernacular as a bridge to literacy in Spanish. Ethel Wallis (1956), 'Sociolinguistics in Relation to Mezquital Otomí Transition Education', describes several socio-linguistic problems which had to be coped with in order to prepare an adequate alphabet which would look like that of the prestige language and at the same time handle all the phonemic contrasts of the language. Margaret Wendel (1962), 'En torno a un programa de alfabetización bilingüe', describes the preparation and use of the Pocomchí eclectic primers and readers in Guatemala.

The book *Recuento de Vocabulario Español I* (1962) by Ismael Rodriguez Bou is a publication of the University of Puerto Rico to which UNESCO and OAS contributed. It is a frequency list which gives the results of a seven million word count which included literary material, but also a large sample of vocabulary from oral and written expression by children and adults, radio programmes, newspaper articles, religious literature, and school texts. It is the most comprehensive work of its kind with many practical applications and a valuable source for writers of primers and readers.

The following papers deal with technical problems in devising orthographies: J. Voorhoeve (1959), 'An Orthography for Saramaccan'. Saramaccan is the language of a people descended from escaped slaves, 'bush negroes', now living along the upper reaches of the Surinam river. A phonemic orthography which takes into account tone, nasalization, and length is proposed. In Gudschinsky (1959), 'Toneme representation in Mazatec Orthography', alternative ways of representing Mazatec tones are described. Numbers were found to be the most practical representations. In David G. Fox (1961), 'Some Psycholinguistic Considerations in Quiché Literacy', the relationship between certain morphemes that occur at terminal contours and intonation, and of word order in relation to punctuation in Quiché is studied.

The psychophonemic method devised by William C. Townsend is described in the following articles: W. C. Townsend (1956), 'El método psicofonémico de alfabetización'; Elaine Townsend (1952 and 1948), 'Construction and Use of Readers for Aymara Indians'; 'Accelerating Literacy by Piecemeal Digestion of the Alphabet'. The idea behind this method is to develop the association between sound and symbol and, so to speak, make the student psychologically literate at the initial stages by very carefully grading the material and presenting some of the most frequent graphemes in commonly used words.

The following articles deal with the preparation of literacy materials: William L. Wonderly (1961), 'Some Factors of Meaningfulness in Reading Matter for Inexperienced Readers'. The experienced reader retains parts of a sentence in mind until the whole can be decoded. The inexperienced reader tends to decode in sequential order and while he puzzles over one word he may forget what came before. Materials for beginning readers have to be designed bearing in mind the memory span of the decoder. This is achieved by using short sentences, no improbable collocations and a style that will be meaningful when the sentence is decoded in sequential order. Ethel Wallis (1952), 'Using Linguistic Analysis in Literacy Methods in Mexico', describes several primers which use different approaches because the languages, Tarasco, Tzeltal, Mazateco, and Zapoteco, are all different in their phonological structure. Raymond Eliott (1962) writes of 'Breves observaciones acerca de la relación entre la lingüística y el proceso de alfabetización'. There is no ideal method; each primer has to be designed to suit the language; in areas where an Indian language is spoken and there are no bilingual teachers, materials to acquaint the teacher with the language of the students have proved to be useful. In Catherine Church (1962) 'Algunas observaciones acerca de la elaboración de cartillas de alfabetización en lengua jacalteca', the complications which arose when trying to introduce the CVC pattern early in a Jacalteca primer are discussed. In Gudschinsky (1951–52) 'Solving the Mazateco Reading Problem', the procedures used to make reading easier for Mazatecos are described.

Pedagogical techniques are discussed in Gudschinsky (1958) 'Native Reactions to Tone in Mazatec' and John Beekman (1950) 'The use of Pre-primer Syllable Charts in Chol Literacy Work'. The emphasis in Beekman's article is on the pre-primer stage at which the learner becomes familiar with the graphemes.

6. As we have seen, linguists have not in any way been involved in literacy work for monolinguals in the national languages either within the framework of the primary school systems or of official programs and campaigns. Linguists could play a role by describing the different standard varieties of the official languages. Children could then be taught to write the standard of their community rather than that prescribed by the Academy as is sometimes the case. Research of the type undertaken in Puerto Rico would benefit primer writers in every country. The substandard dialects should also be described and contrastive studies could then be made from which the primary school teachers would benefit. Work of this kind is being undertaken in the United States.[11] The only Latin American linguist to have done any work along these lines is Berta Vidal de Battini in her book *El español de la Argentina* (1954). Methods of teaching literacy to children and adults could be improved by better knowledge of the relationship between speech and writing.

The linguistic situation has been mapped in very few countries in the area. Further research should be done in the non-Hispanic Caribbean where bilingualism is the rule rather than the exception. The linguistic situation in Haiti is well known. Some educators are aware of the linguistic problems and know how they could be solved, but for reasons beyond their control very little has been accomplished. In the European affiliated areas linguists have had very little influence except in Surinam. If the number of monolingual and bilingual speakers of each language were known and if there were adequate descriptions of the languages and contrastive analyses of every vernacular and the appropriate official standard, perhaps governments could be persuaded to undertake programs where literacy in the vernacular would be at least a stepping stone to literacy in the official language or where people would be taught to speak the official language before they were expected to learn to read and write in it.

Of the linguists who have been active in the literacy field in Indian languages, by far the largest number are members of the Summer Institute of Linguistics. Others are Mexican linguists. A handful have been active elsewhere. Besides the efforts of SIL members on their own, and as technical advisers to governments, very few official programmes of any linguistic sophistication can be mentioned, although there have been some in Mexico, Guatemala, Venezuela, and Peru. The activities of SIL had been largely limited to languages with a relatively small number of speakers until recently when work in Quechua was included both in Ecuador and Peru. We can now hope that their work will have wider impact and that governments of countries where Indian languages are spoken will adopt the policy of making minorities bilingual and biliterate. If this ever becomes a reality, more citizens of these countries will need to be trained in linguistics and its applications.

Linguists have shown that their discipline can be valuable in the field of literacy, but remaining tasks of research, training, and application are still to come.

Note

The present article was written almost ten years ago. Since then, the illiteracy rate has fallen in most countries. There are no easily available figures reflecting the result of the 1970 census for all countries. Here we include figures from the 1971 edition of the UN *Demographic Yearbook* (pp. 523–29). They should be compared with those of Table 5 (Adult Illiteracy in Ibero-America and the Caribbean).

	Adult population (thousands)	Adult Literate population (thousands)	Percentage of adult illiterates
MEXICO AND CENTRAL AMERICA			
Mexico	26,020	19,285	20
Guatemala	2,338	887	60
Nicaragua	794	396	50
Costa Rica	697	588	15
SOUTH AMERICA			
Colombia	9,328	6,802	27
Ecuador	2,451	1,661	27
Chile	5,276	4,596	11
Paraguay	984	731	26
Uruguay	1,847	1,661	10
Brazil	54,164	36,262	33
CARIBBEAN			
Guadeloupe	176	145	16
Martinique	182	158	10

Notes

[1] A survey such as the present one would have been impossible without the co-operation of many persons and organisations that supplied information and materials. Their help is gratefully acknowledged. Thanks are also due to Miss Joy Varicy who read the Manuscript.

[2] For a discussion of the relationship between literacy and economic development see: Adam Curle (1964) and Alfred S. Hayes (1965).

[3] UNESCO and International Bureau of Education (1964).

[4] Edouard C. Paul (1965): 1B.

[5] *Adult* usually means fifteen years and over.

[6] Crefal: Centro regional de educación fundamental para el desarrollo de la comunidad en América Latina. see 4.13.

[7] Burns (1963).

[8] Special thanks are due to Professor Richard R. Fagen, of Stanford University, for allowing me to use photographic reproductions of the Cuban primer and manual.

[9] Frank Laubach and Robert S. Laubach (1960).

[10] Data furnished by the Inspector of Education, Netherlands Antilles.

[11] William A. Stewart (1964).

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Problems of Literacy in Sub-Saharan Africa*

Philip J. Foster

Considerable difficulty attends any effort to describe the progress and problems of literacy in Sub-Saharan Africa since the topic does not fall within the purview of any single discipline. Professional linguists, where they have been concerned at all with the diffusion of literacy, have been largely preoccupied with the preparation of descriptions and orthographies of African languages. Psychologists and reading specialists have emphasised the development of experimental designs in order to test the relative effectiveness of alternate methods of teaching reading and writing skills, although virtually none of this work has been undertaken in Africa. Finally, sociologists and economists have recently directed some attention to the behavioral and economic consequences of literacy. Supplementing this literature is a substantial but highly variable body of material that has attempted to describe the progress and results of specific literacy campaigns conducted among adults.

This essay makes no attempt to examine specialized linguistic materials relating to Africa. Moreover, the research data on the teaching of literacy has already been extensively examined by Gray (1956). Rivers (1964) has also drawn together most existing materials on the related problem of foreign language teaching. The present discussion concerns itself rather with three different topics: the description of the present literacy situation in Africa and an examination of some fugitive materials on the progress of literacy campaigns; a summary of the fragmentary data concerning the relationship between literacy and development and, finally, an assessment of the economic and political implications of language policy in the nations of Sub-Saharan Africa. In view of the absence of any substantive research it must be recognised that many observations must be, to some extent, prescriptive and speculative. Nonetheless, it is appropriate that both linguists and specialists in the teaching of reading and writing recognize that some of the most crucial factors influencing literacy and language policies in Africa are largely economic, political and social in origin.

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The Level of Literacy in Sub-Saharan Africa

Statistics describing levels of literacy must be treated with caution due to substantial ambiguities in the criteria used in defining a literate (Anon. 1957c). Several attempts have been made to provide a general picture of world literacy but these have been crude and are now largely outdated (Unesco 1953a, 1957). Table 1 gives the most recent available data on literacy levels in selected countries in Sub-Saharan Africa but with several significant omissions. Notably, Ghana has an overall literacy rate of 38 per cent based on the 1960 Census of Population; estimates for the Congo (Kinshasa) vary between 40 to 45 per cent and the figures for Kenya probably approximate to those presented for Uganda. In the absence of adequate data it can be safely assumed that the figures for Ethiopia stand at about the 5 per cent level.

TABLE 1

Percentage of Illiteracy in Selected Countries of Sub-Saharan Africa Based on the Last Two Censuses or Surveys Conducted Since 1945

	Percentage of Illiteracy		
	Males	Females	Total
Angola	95.7	98.2	97.0
Botswana	...	...	79.5
Gabon	90.7	98.1	94.8
Lesotho	71.2	60.3	65.1
Liberia	86.1	95.8	91.1
Malagasy Republic	59.2	73.0	66.5
Malawi	...	...	93.5
Mozambique			
'Civilized Population'	6.0	22.2	12.7
'Uncivilized Population'	97.1	99.7	99.1
Niger	98.5	99.7	99.1
Nigeria	...	...	88.5
Senegal	89.6	98.9	94.5
South Africa (Bantu Population)	71.6	73.4	72.5
Swaziland	...	...	77.2
Uganda	63.2	86.1	74.9
Zambia	46.8	70.3	58.6

* Based on Unesco *Statistical Yearbook 1964* (Paris: Unesco, 1966). With the exception of the Malagasy Republic, all offshore islands and the smaller Portugese and Spanish territories included in the original table have been omitted.

However inadequate, these figures are instructive. They indicate that although overall literacy figures are low there is considerable variation among African countries. In such areas as the Congo (Kinshasa). Ghana and the Malagasy Republic the level of literacy approximates to that reaches by many Western nations in the middle or third quarter of the nineteenth century. These three countries are followed by an intermediate group consisting of Botswana, Kenya, Lesotho, South Africa, Swaziland, Uganda, and Zambia where the level of literacy is fairly substantial. This is followed by a large residual category of nations with literacy rates usually below 10 per cent. There is a substantial lag of female literacy in most territories, with the striking exception of Lesotho where the economic activities of younger males have limited their attendance at primary schools. What the figures do not reveal are striking internal differences in levels of literacy in African states. The Nigerian data provided here are clearly out of date but current estimates would suggest an adult literacy rate of about 30 per cent in larger southern urban centres with a decline to well below 5 per cent in some rural northern districts. This pattern of marked internal variation is characteristic of most African countries and its significance will be discussed in a following section.

The Rise and Fall of Literacy Campaigns

Whatever their contribution has been to raising aggregate rates of literacy in Africa, literacy campaigns carried out among adults have had a romantic appeal that has led to the emergence of a considerable amount of descriptive literature. A great deal of data remains presumably in government archives but Jeffries has recently provided a brief general summary of major literacy campaigns conducted in Sub-Saharan Africa and has drawn in some measure of unpublished materials (C. Jeffries, 1967:42–63). Moreover, an extensive general bibliography on adult education in Africa using French and British sources has now been prepared (Bown 1966).

Mass literacy programs are entirely a post World War II phenomenon. Before that date mission work with adults was sporadic and limited and there seems to be no evidence of colonial regimes being in any way involved with adult literacy training. In British territories, at least, concern was stimulated by the passing of a series of Colonial Development and Welfare Acts beginning in 1940 and the presentation of major policy documents by the Advisory Committee on Education in the Colonies (Great Britain Colonial Office, 1944; 1949). The intermediate years after World War II, therefore, witnessed a considerable preoccupation with adult literacy campaigns often viewed as a component of more general community development programmes.

The effort to diffuse literacy among adults was much more marked in West Africa; Elvin (1957) and Hodgkin (1953a) have provided general surveys of activities in that area during the nineteen-fifties. More detailed information is available, however, on progress in individual territories and developments in Ghana are particularly well-documented (Gold Coast 1951a, 1951b; du Sautoy 1958). Here, pilot schemes conducted in Togoland revealed an extensive demand for literacy and experience in this area provided the basis for a later national campaign (Gold Coast, 1952a; Anon, 1954a, 1954b). As a result of local demand what began as a general community development scheme became largely a literacy campaign staffed for the most part by voluntary unpaid teachers. Literacy certificates were awarded on the basis of an examination given after three months of instruction by means of techniques developed by Frank Laubach. Between 1952 and 1957 about 129,000 literacy certificates were awarded but since that time the number has tended to level off with an annual output of approximately 22,000. Roughly 350,000 adults have, therefore, received certificates in a fifteen year span. Without doubt, the Ghanaian campaign was the most effectively planned operation conducted in Africa in the post-war period. Yet in recent years impetus seems to have substantially declined and in view of the statistics available it does not appear that adult campaigns have had much impact on aggregate rates of illiteracy.

The progress of adult literacy work in Nigeria has been described by W. F. Jeffries (1958), Mallam Ahmadu Coomassie (1957), and J. W. Court (1958) for the North and by E. R. Chadwick (1947, 1949) and R. I. Uzoma (1948) for districts in the East. Enthusiasm was considerable in the immediate post-war years particularly in the North where literacy stood at well below 5 per cent. Campaigns were largely controlled by local government authorities and instruction was mainly in the hands of part-time teachers who received nominal payment. Activities in the Northern Region began as early as 1946 and Court has estimated that between that date and 1958 over half-a-million new literates were produced plus another one-quarter of a million who could read but not write (Court, 1958:65).

Chadwick's observations on the progress of the literacy campaign in the Udi division of Eastern Region are particularly valuable. In this case, development was the result of the initiative of a district officer and the local population. The program was staffed by local instructors and, in contrast to the situation in the North, it received no substantial official assistance. Although initial enthusiasm for literacy was considerable there was a substantial wastage from classes and in Chadwick's view, literacy was useful as a 'morale builder' though it was not essential to community development.

By the early 1950s progress in Nigeria seemed substantial and in 1951 there were 1,080 Adult Education Centers and 2,671 classes with an enrollment of 66,000. This figure represented only about one-tenth of one per cent of the adult population, however, and by 1956 the literacy drive had begun to fade out. In the most recent available report on adult literacy programs in Nigeria it was indicated that approximately 1,300 previously illiterate persons per year are now receiving literacy certificates either in a local language or English. It is apparent that mass literacy campaigns no longer generate popular enthusiasm or substantial government commitment (International Bureau of Education, 1964:111).

Although the Ghanaian and Nigerian campaigns have provided the most detailed materials on the progress of adult literacy work in West Africa, useful descriptive accounts of work in the Cameroons have been published by Chicot (1954) and O'Kelly (1957, 1959). A further report by Wise (1959) is particularly valuable in providing much more detailed information than do most commentators on the actual mode of instruction and the time taken to produce literates under the special residential conditions obtaining on plantations.

Published materials from East and Central Africa are much more fragmentary. J. L. Pretorius (1948) has reported on a very early experiment in Mass Education conducted in Nyasaland in 1947. H. Mason (1952, 1955, 1956) has also provided extensive descriptions of work in the Pare District of Tanganyika carried on between 1950 and 1954; this work is useful in that estimates are given of the actual number of literates produced. Brief discussions by T. R. Young (1959), T. J. Dames (1967), and E. W. Smith (1957) are available concerning progress in adult literacy in Kenya and Uganda while Bonnani (1961) has described preliminary efforts conducted among Somali nomads. Finally, work with adults in Northern Rhodesia is discussed in some detail by Hope Hay (1947).

Published materials from French speaking Africa are more limited. Indeed, one article by Capelle (1949) on education in French West Africa makes no mention of work with adults and what evidence exists would suggest that activities were far more restricted in scale than those conducted in British territories in the late colonial period. Nonetheless, Térrisse (1952) has provided a certain amount of data while Unesco (1955) has published a useful general report on programs undertaken in French African territories up to the mid 1950s. A separate report is also available on experiments conducted in French Togoland in the same period (Anon, 1954a).

As has been indicated, many valuable materials describing literacy work among adults in Sub-Saharan Africa are probably available only from unpublished government and mission records. The articles referred to in the present paper merely represent a very limited sampling of accounts by individuals intimately concerned with the progress of specific campaigns. It has been noted elsewhere that there is a pressing need to effect a composite evaluation of these kinds of 'case histories' in order to avoid planning errors in future programs (Hayes, 1965:20). Some doubts must be entertained, however, concerning the utility of many of the reports prepared by literacy specialists working on the Africa scene.

Most accounts contain perceptive remarks concerning such topics as motivation for acquiring literacy, wastage from classes, and the relationship between literacy programs and other community development schemes. However, they rarely present material in such a form that a systematic assessment of projects can be made. Frequently, reports do not specify the methods and techniques of instruction employed nor do many of them indicate the actual output of literates in terms of some specific criterion of reading and writing skills. Few writers indicate the actual hours of instruction required to produce a literate nor is there usually any attempt to estimate program costs. Above all, systematic follow-up evaluation of the results of campaigns is almost totally lacking. The need for such evaluation and the possibility of using quantitative techniques to measure progress in community projects has been stressed by Burroughs (1956) and Wahlund (1956). Yet there is little evidence that campaign organizers in Africa have, as yet, attempted to apply stricter canons of evaluation. This is particularly noticeable in the failure to assess the rate of lapse into illiteracy after programmes have been completed and in the complete lack of studies that could assess the behavioural and attitudinal changes in individuals resulting from the acquisition of reading and writing skills. In the absence of carefully controlled and systematic evaluation of projects the field has been left open to the claims of enthusiasts anxious to demonstrate the superiority of their own methods on the basis of no experimental or systematic survey evidence. In subsequent pages we shall return to these points in greater detail.

With few exceptions the current situation would suggest some apathy among African governments concerning adult literacy. The number of journal articles describing the progress of campaigns in Sub-Saharan Africa has declined in the last few years and a recent literacy survey that included returns from twenty-three nations in Sub-Saharan Africa reveals sparse evidence of any substantial concern (International Bureau of Education 1964, 1965). Most countries have 'plans' but there is little indication of their implementation and only Guinea, Mali, Niger and Tanzania are mounting or attempting to mount major programmes although it is yet too early to assess the effectiveness of these recent efforts. The survey is of limited utility owing to the almost complete absence of statistical data but its findings suggest that the period of peak activity in adult programmes has passed.

This situation reflects, in no small measure, an increasing uneasiness on the part of African governments concerning the impact of literacy campaigns and their effectiveness as stimulators of economic development and modernisation. It has come to be recognised that the accounts of campaign organisers are no substitute for taking a hard look at the 'pay-off' from mass literacy programmes. Doubts as to the effectiveness of actual campaigns, therefore, have led African governments to limit investments in adult literacy programmes, and instead concentrate expenditures on the development of schools. Indeed, the Addis Ababa Conference on the Development of Education in Africa in estimating that about 5 per cent of educational expenditures should be spent on adult education was suggesting a figure well above that which most African nations deem advisable (Conference of African States 1961).

It is conceivable that a considerable revival of interest may occur as a result of the present Unesco 'World Campaign for Universal Literacy'. Unesco's original scheme envisaged an expenditure of rather less than $200 million per year over a decade to achieve reading and writing competence among two-thirds of the world's present adult illiterates (Unesco 1963). The costs of such a programme were not beyond the resources of the developing nations but sharp criticism was forthcoming as to the economic wisdom of such a crude mass approach (Curle 1964).

As a result, Unesco's final scheme as embodied in the conclusions of the Teheran Conference of 1965 was far more cautious and pragmatic (UNESCO, 1965a). Experiments were to be concentrated initially in only seven countries (including Guinea, Mali and Tanzania). The major effort was to be made with younger age-groups in these areas. Rather than trying to diffuse literacy on a mass basis the aim was to develop 'functional' as opposed to rudimentary literacy among a carefully pre-selected minority of the population. In other words, emphasis was to be upon the productive use of reading and writing skills rather than the mere acquisition of elementary literacy. The cliché that 'literacy is not an end in itself' was to be taken seriously and the effectiveness of literacy campaigns was, henceforth, to be judged in terms of their measured contribution to economic development. This implied, in every case, a careful quantitative and qualitative evaluation of the outcomes of literacy campaigns. It was hoped that such an evaluation of the initial experiments would enable new and more extensive projects to develop along sound lines.

So far, in Sub-Saharan Africa only Mali's pilot project has been approved but her experience may provide a model for the diffusion of functional literacy in other African nations. The new approach to literacy will involve, above all, systematic observation and research by linguists, literacy specialists, psychologists, economists, and sociologists if it is to have any significance. Hayes has already provided a schematic outline of the types of research that specialists in these disciplines can usefully undertake in the African context (Hayes, 1965:11–23).

The Economic Significance of Literacy

Whatever the manifold long-run or indirect benefits of literacy may be, the present climate of government opinion in African states favours the development of mass literacy programmes to the extent that they generate economic benefits. Moreover, it is sometimes hoped that the diffusion of literacy will help to create conditions of greater political stability on the assumption that this is associated in some measure with the development of effective mass media and communications systems. Unfortunately, there is little substantive research literature that has attempted to explicate the relationships between literacy and economic or political development and virtually none of this is based on African data.

So far as economic development is concerned, simple global correlations between levels of adult literacy and GNP per capita are usually in the order of .80 or above but this kind of summary statistic conceals as much as it reveals (Golden 1955). A more sophisticated recent study by Bowman and Anderson (1963) demonstrates that although richer countries (with per capita incomes of over $500) have literacy rates of above 90 per cent and poor countries (with per capital income of below $200) have literacy rates of below 30 per cent, there is virtually no relationship between literacy and income per head in the 30 to 70 per cent literacy range. In other words, the contribution of literacy to development may be highly variable at different stages of growth. Moreover, when primary school enrollments rather than adult literacy figures were used, it was apparent that national income positions in the 1930's explained enrollments rates in the '50s better than schooling in the 1930's explained income in the '50s. In short, this kind of evidence suggests that countries are literate because they are productive rather than the reverse.

Historical materials supplement the limited findings supplied by simple correlations. All those countries that have achieved considerable economic development over the last century began from a firm literacy base that included about 40 per cent of the adult male population. It is simply not true that the United States, Britain, the Soviet Union or Japan, for example, industrialised on the basis of largely illiterate populations (Anderson, 1956, 1965; Dore, 1965:214–322). These historical cases have led some researchers to speak of a 40 per cent literacy threshold as a prerequisite of sustained growth. Clearly, with the exception of the Republic of South Africa – a very special case – the Congo (Kinshasa), and Ghana, no Sub-Saharan nation approaches these figures.

It is apparent that conventional generalisations about the relationship between literacy and economic development are suggestive rather than prescriptive. First, correlations do not imply causation and certainly with social and economic data one can only talk of multivariate relationships. Second, although the evidence points to literacy as a prerequisite of growth it cannot be inferred that it is a sufficient condition; some countries have relatively high levels of literacy with little development. Certainly, existing data would imply that literacy does not in itself constitute the royal road to economic advance.

Moreover, the kinds of research discussed are virtually useless in providing short-term guide lines for the hard policy decisions that must be made in African states: at any given moment what represents the optimum allocation of limited resources? This question concerns not only resource allocation within the educational sector itself but as between sectors. Is it to be roads or primary schools, mass literacy or health services? Economists are in no position to make such judgments on the basis of the evidence available though some start has been made (Bowles, 1966).

Furthermore, correlation approaches ignore a whole range of intervening variables that are crucial to an understanding of the role of literacy in development. In other words, they ignore the major question of what really 'happens' to people after they become literate. Presumably, development occurs insofar as the acquisition of reading and writing skills is followed by significant changes in the attitudes, values and concrete behavior of individuals. There is crude evidence, for example, that literacy is related to higher agricultural productivity among African farmers and a good case can be made out that literacy constitutes a significant component of general agricultural development (Yudelman, 1964; Schultz, 1964). Nevertheless there is an almost total lack of carefully designed experimental or survey data concerning the behavioral implications of the ability to read and write. Doob's (1961a, 1961b) work in Africa speaks to some of these questions while more recent work by Schuman, Inkeles, and Smith (1967) conducted in India would suggest that the impact of literacy on economic attitudes is highly variable. For example, it seems to generate attitudes favourable to the adoption of new techniques of cultivation but seems to have little influence on the willingness of individuals to immigrate to areas where income earning opportunities are greater. It is precisely this type of research designed to test specific propositions concerning the role of literacy that is needed in Africa. Without it, investment in mass literacy campaigns is more an act of faith than a result of a rational calculation of benefits.

Literacy and Political Development

The same strictures can be applied to studies that attempt to relate literacy to indices of political development. Lipset has attempted to establish through the use of simple correlation techniques that there is a general world-wide relationship between the extent of literacy in various nations and the existence of stable political democracy. (For Lipset the concept involves the ability of the mass of the population to influence political decisions, the presence of a political formula that legitimises political competition, and the existence of procedures for the orderly transfer of power to opposition groups) (Lipset 1959, 1963:27–63). Following upon Lipset's simpler research designs, a fuller treatment of the theme has been made by Cutright (1963) and notably by McCrone and Cnudde (1967) who, using more sophisticated path analysis, have examined the direction of the relationships between democratic political development, education, urbanisation, and mass communications. This body of research has been supplemented with studies of individuals that indicate that level of formal education is positively correlated with the presence of 'liberal' or 'democratic' attitudes (Lipset, 1963:87–126.)

Of course, mass literacy is no guarantee of democratic political development as European experience testifies. Moreover, it is legitimate to suggest that the major political problems of Sub-Saharan Africa do not centre upon the emergence of western-type democratic polities but upon the politics of survival. Even here it must be recognised that the effectiveness and stability of totalitarian or one party régimes also depends upon the development of mass communication systems and probably upon a broad basis of literacy. This, as political scientists have indicated, is necessitated by the need to constantly mobilise active widespread demonstrations of support for the régime. Thus, a convincing *prima facie* case could be made to suggest that the stability and effectiveness of African one party systems might be correlated with the level of literacy in a population but, as with research on the economic consequences of literacy, there has been no work conducted in Africa that speaks directly to this question. Once again, one is obliged to indicate the importance of investigation of the behavioral and attitudinal implications of reading and writing skills without being able to point to the existence of any systematic research literature that bears on this question in the African context.

One conclusion might be justifiably drawn from present evidence: the simultaneous pursuit of economic and political goals may lead to major policy conflicts in African states. Basically, the current Unesco approach that stresses the economic benefits of literacy entails an uneven geographic distribution of resources; campaigns must be focused upon limited groups within an African population from whom maximum economic payoff can be expected. This might suggest, for example, concentration on urban populations or very specifically selected groups of farmers. In short, the theme is one of calculated inequality based on efficiency criteria; high levels of literacy will have developed among certain groups or in particular areas at the temporary expense of large segments of the remaining population. By contrast, if stress is laid upon literacy as a factor influencing the level of political efficacy of African regimes or the degree of mobilisation of the masses, a different policy is likely to emerge. In this situation, it can be argued that where resources are limited, it is preferable to spread literacy more widely even if thinly throughout the bulk of the population. This approach would be suggested for example, by Katz's 'Two Step' theory of communication flow which suggests that the impact of mass media is essentially mediated through face-to-face relationships in which local opinion leaders play a significant role (Katz, 1957). Assuming that governments have effective control over the major written communications media, it follows that the presence of a few literates in every community is politically more efficacious than their concentration in, for example, a few urban centres, or agricultural districts.

Thus if political objectives are paramount, the literacy policies pursued are likely to be very different from those dictated by primarily economic considerations. Only too rarely, however, do literacy specialists or government planners have any idea what objectives are to be given priority in either the short-run or long-term perspective.

The Diffusion of and the Demand for Literacy

Only the governments of African nations can make the final decisions concerning major policy objectives but an examination of the pattern of diffusion of literacy throughout various societies suggests that the concentration of resources on a few focal areas or groups is tactically more feasible; more literates can be created more rapidly and at lower cost through such an approach.

It is demonstrable that the initial demand for literacy is never randomly distributed throughout a population. In Africa, as elsewhere, demand is associated with urbanisation, and some observers have considered the growth of towns as the major intervening variable crucial for the take-off toward increasing literacy. Lerner, in particular, has seen urbanisation as the critical factor inducing a demand for education (in which literacy is the key element) (Lerner, 1958). The growth of towns stimulates the development of mass communication media, which in turn further enhance the demand for literacy. Lerner's thesis has received more recent empirical confirmation and no one familiar with African census data can fail to be impressed by the fairly systematic association of formal education and literacy with the urban centres (McCrone and Cnudde, 1967). This relationship is not simply a function of population concentration since Schramm (1960:136) has suggested that high population density in agricultural area is negatively correlated with literacy. Some reservations might be held about this assertion in the African situation in view of the high demand for literacy and schooling among such groups as the Ewe, Kikuyu, and Ibo but there can be little doubt that, in general, urban populations are significantly more literate than rural groups.

Clearly, the development of the exchange economy first within towns creates the conditions in which literacy is functionally useful in economic performance. Increasingly it becomes the prerequisite for access to modern-type occupations, and most observers of the educational scene in Africa have noted that the motivation for literacy is largely economic in origin (Chadwick, 1949:9). In other words, literacy tends to be valued for the immediate cash benefits that it is believed to confer.

To be sure, mission agencies (and many of those associated with the work of Dr. Frank Laubach) have attached considerable importance to the implications of literacy for purposes of religious proselytisation. But there is little evidence that religion, in fact, played a major role in generating a demand for literacy among Africans themselves. Religious needs certainly had some influence in creating a very narrow literacy base in the Arabic script in some Muslim areas of the Western Sudan. Moreover, it seems tenable that the demand for schools and literacy in late nineteenth and early twentieth century Buganda was in part the result of mass conversion to Christianity (Fallers, 1963). However, there were certain aspects of the socio-political structure of Buganda, in particular, that were unique and there seem to be few parallels to this situation in the remainder of the Sub-Saharan continent.

Nor can ethnic rivalries be ruled out as providing a basis for local demand for a literacy campaign. For example, enthusiasm for such campaigns among the Ga and Adangme in Ghana during the 1950s may have sprung partly from a desire to emulate and surpass the achievements of the other. It is questionable, however, that such enthusiasm is long-lived unless accompanied by other substantial benefits.

In spite of these subsidiary factors that influence demand, it would seem that urbanisation is the key initial variable that stimulates interest in acquiring reading and writing skills. The towns, in turn, become the nodal points from which demand diffuses to the rural hinterlands. Most rural areas are, at first, characterised by apathy concerning literacy and schooling; literacy or formal education has little utility in either economic or status terms (Foster, 1964). It follows that the desire for literacy is itself consequent upon certain changes having already taken place in the structure of rural economies. In other words, the movement from a primarily subsistence to an increasingly exchange or cash-crop economy must be underway before people begin to perceive that reading and writing are worthwhile. The initial impetus to agricultural change does not come from literacy or schooling; indeed a great deal of agricultural innovation can take place without it. The introduction of new and profitable cash crops, the improvement of transportation, or the possibility of obtaining credit, all stimulate the swing from subsistence to exchange activities largely independently of the extent of literacy in a rural population. Once this shift from a subsistence to a cash-crop economy has begun, however, literacy becomes increasingly significant in further growth since, at a minimal level, it enables farmers to calculate crop yields and returns. More important, as other observers have indicated, literacy improves the efficiency of agricultural extension services upon which a great deal of agricultural development depends, for instructors are able to reach a far wider segment of the farming population through the use of printed media. By this means, unit costs of instruction can be reduced. Although printed information cannot replace oral communication and direct demonstration it is, to say the least, a valuable reinforcement (Blaug, 1966:403).

It should be clear, therefore, that the relation between literacy and development is complex. Literacy is not the 'prime mover' since initial change frequently takes place without it but beyond a certain level, it becomes increasingly a prerequisite of future growth and, in turn, stimulates further processes of development. From this viewpoint, it becomes easier to understand the pattern of demand for literacy and the process by which it is diffused.

What implications do these observations have for the timing and extent of literacy campaigns or for that matter, the development of formal schooling? At one time it was not uncommon for organisers of literacy campaigns to indicate that initial efforts were to be directed at creating a demand for literacy. Alternatively, it was suggested that literacy classes should be used as a kind of 'bait' to induce local communities to particpate in more general community development projects (Chadwick, 1947:630). In the light of the preceding analysis this approach implies a considerable short-run misallocation of limited resources in that it entails stimulation of demand in areas where the economic prerequisites for the effective diffusion of literacy are weak. Under such circumstances, programmes are likely to be expensive in terms of cost per literate since demand must be created and levels of public interest must be maintained. Further, the probability of substantial drop-out before functional or even rudimentary literacy has been achieved is very high. Similarly, under conditions where acquired skills are not actively utilised the lapse into illiteracy is likely to be frequent or extensive.

These difficulties have been implicitly recognised in those areas of Sub-Saharan Africa where crude surveys of the potential demand for literacy and reading materials have been undertaken (Griffin, 1963). However, the findings of such surveys are generally unreliable since estimates of 'demand' may merely tend to reflect local community desires to share available government benefits. A more reliable behavioural indicator of demand might be the extent to which local communities are prepared to carry forward schemes on their own initiative and thus defray a proportion of their cost. In these circumstances, government assistance becomes supplemental to local effort and enables limited public resources to be stretched and unit costs reduced.

Such a pragmatic approach to literacy is likely to conflict with notions of equality of educational opportunity that receive so much emphasis in the political programmes of African states. Nor does it appeal to those proponents of mass literacy who stress the 'indirect and long-run' benefits that accrue from the widespread diffusion of skills in reading and writing. But it must be recognised that such indirect and long term benefits are largely non-measurable. At present, a reasonably planned literacy campaign must take costs into account and attempt to relate these to some crude measures of private and social benefits. Indeed, the foregoing observations would suggest that the measured pay-off to literacy campaigns may be greater among some segments of the urban labour force and specific groups of cash-crop farmers.

Costs and Benefits

It is noteworthy that few accounts of literacy campaigns in Sub-Saharan Africa mention either aggregate outlays or unit costs per literate produced. Du Sautoy has produced an extremely useful summary of items that must be considered in the costing and financing of adult literacy programmes (du Sautoy, 1966:49–56). This has been supplemented by a more general examination of problems of costing produced by the 'Institut d'Etude du Développement Economique et Social' (IEDES, 1964:32–6). It is to Blaug, however, that we must turn for the most definitive statement outlining the problems of assessing the costs and benefits of literacy campaigns (Blaug, 1966:393–418).

Even where planners are agreed on the 'target populations' that should be reached through adult literacy campaigns they are normally obliged to limit the size of programmes owing to budgetary constraints and the calculation of direct monetary costs is, therefore, the first task that must be faced. A substantial proportion of these – perhaps over one-half – stem from the payment of instructors. Some earlier literacy campaigns depended heavily on a supply of unpaid volunteers (sometimes on the assumption that it was unwise to pay instructors in the pursuit of laudable community ends) (Chadwick, 1949:15).

The burden of evidence now suggests that payment is desirable if regular instruction is to be provided. Further, there is considerable, if impressionistic evidence that the services of teachers are more effective than those of other volunteer literates (Mason, 1955:165; Wise, 1959:112). Untrained literates must receive instruction over and above that received by teachers which in turn raises programme costs. If some estimate of the 'target population' is available, then it is possible to calculate the need for instructors on the basis of assumed pupil/teacher ratios. It must be noted, however, that such ratios are often conventional and there is little reliable evidence derived from adult campaigns about the effect of class size on teaching effectiveness.

There seems to be little agreement as to the amount of teaching time required to produce a literate. Some accounts speak of a short three or four months course (with hours of instruction not specified) while others indicate a minimum of 200 hours of instruction spread out over a period of one year (Wise 1959:84). Much of the confusion stems from the definitions of literacy employed, but Blaug has made a careful estimate that the total cost of producing an effective literate may run as high as $40 (or $20 per year per person) (Blaug, 1966:413). This latter figure approximates to annual per pupil costs in primary education.

Other monetary costs include the payment of supervisory personnel and consultants and the preparation of primers, textbooks, flashcards, and follow-up materials. In addition, buildings must be constructed or rented and substantial capital investments are often made in motor transport and the provision of audio-visual equipment. Government budgetary estimates of campaign expenditures may go into considerable detail concerning initial costs but, in many cases, less attention is paid to maintenance costs and the problem of depreciation of physical equipment. For example, if schools are used in the evening for adult literacy classes there is likely to be additional deterioration of classrooms that must be reflected in cost estimates.

Another factor that affects the unit cost of producing a literate is the amount of wastage or drop-out from classes. There are few explicit estimates of wastage rates in the literature since most accounts are more concerned with the number of literates finally produced than with initial enrollments. Such evidence as exists would suggest, that frequently less than 10 per cent of enrolled individuals stay long enough to complete formal course requirements or obtain a literacy certificate (Chadwick, 1949:17; Rao, 1963:118). This level of wastage exerts a massive effect on final costs per literate produced and some estimate of its extent must be built, therefore, into any initial assessment of campaign costs.

Attempts might be made to reduce wastage through more rigourous selection of candidates for classes but this procedure again increases costs. At present, however, there seems to be no evidence concerning the relation between persistence in classes and individual attributes that would provide some basis for selection. In the absence of any reasonable data it might be hypothesised that other things being equal, individuals are much more likely to continue with classes if they have been initially obliged to purchase 'literacy kits' or have made some direct contribution to campaign costs. This is speculative and merely highlights the fact that most programme organisers have failed to collect the kinds of information that are vital to planning.

Finally, it is rarely realised that the real costs of literacy campaigns may far exceed direct monetary outlays in the sense that resources devoted to them cannot then be utilised elsewhere. These 'opportunity costs' are the loss of those private and social benefits that might have accrued if resources had been invested elsewhere than in a literacy campaign. Thus the opportunity costs of sending a child to school may be high where parents need his labour on the family farm but this point is less frequently recognised in the context of adult education. The costs of allowing industrial workers free time during the day, for example, to attend literacy classes are the loss of production incurred during their absence from work. The same observations are applicable to the attendance of farmers at classes or the diversion of teacher time to evening sessions; real costs may be considerable in terms of diminution of subsequent teacher efficiency in the course of normal duties in the classroom. This is not to suggest that under all conditions opportunity costs are necessarily large but they must be considered if a more realistic approach to planning is to emerge.

The costing of literacy programmes is, therefore, a difficult task but that of assessing their benefits is even more formidable. Where data are available on the earnings of industrial workers or full-time employees in the modern sector of African economies it is possible to compare the earnings of literates and non-literates while controlling for age. This approach is fraught with difficulty, however, since it assumes that relative incomes reflect differences in productivity. This often is not the case in African countries where a substantial proportion of employment is within the public sector. Government wage scales are conventional and bear little relation to performance. It can be argued that incomes in the private sector and particularly those of less skilled workers bear a closer relation to productivity but in every case income reflects not only education but differences in native ability and motivation. Moreover, efforts to directly measure differences in the physical productivity of literate and illiterate workers are extraordinarily difficult to undertake. It must be recognised, therefore, that there are formidable obstacles to undertaking conventional cost-benefit analyses of the consequences of literacy. Nonetheless, the problems of measurement are not insuperable and however crude they might be, cost-benefit analyses could provide some rationale for literacy programmes over and above the vague statement that the benefits of literacy are essentially non-measurable and indirect (but always substantial!).

Clearly, problems of measurement are compounded in the agricultural sector where it is a difficult task to obtain data on farm incomes. Yet it is still feasible to compare the productivity and earnings of literate and non-literate farmers in selected areas while at the same time paying attention to less obvious consequences of literacy such as the propensity of individuals to experiment with new crops or cultivation techniques.

Clearly, it cannot be expected that every literacy campaign will involve an elaborate analysis of costs and a detailed assessment of benefits. All that can be expected in the African context is the careful evaluation of a few specifically experimental programmes that might provide a basis for further planning.

Schools or Adult Literacy

If African governments are committed to the diffusion of literacy without being preoccupied with its short-run and measurable outcomes, then programmes for adults are no substitute for the development of primary schooling. A massive expansion in the provision of lower level schools is the only way to produce a literate society. Even where enrollment is far from 100 per cent of the primary school age group, literacy rates tend to rise exponentially due to the dying off of older generations of illiterates. Under present conditions, therefore, it is highly unlikely that adult literacy campaigns can make a substential difference to the general level of literacy in African nations. This suggests that the justification for adult schemes must be in their short-term contribution to development rather than in their impact on gross levels of literacy.

Considered in this light, adult programmes have two distinct advantages over training given in the schools. First, it is far less costly to provide literacy training for adults. It seems generally accepted that children require from four to six years of schooling to become functionally literate. Even assuming high quality instruction, the cost of producing a literate adult is no more than one-quarter to one-half of that required to produce a literate child. Second, the skills acquired by adults can be utilised almost immediately in the economy while the returns to investment in formal schooling are necessarily deferred (Southworth and Johnston, 1967:155). On the other hand, the benefits accruing to schooling extend over a substantially longer period of time and this adds cogency to the argument that adult programmes must be confined to younger age cohorts whose span of future productivity is likely to be substantially longer. Thus, although it has sometimes been considered essential to open classes to older individuals for political or tactical ends, this procedure is less justifiable from a narrowly economic viewpoint.

These caveats notwithstanding, it seems clear that analysis of educational costs casts a more favourable light on adult literacy programmes. Moreover, as Blaug has pointed out, present benefits are preferable to deferred ones since 'a dollar's worth of today's goods and services can be reinvested in a growing economy to produce more than a dollars worth tomorrow, whereas a dollar's worth of investment tomorrow is still only worth a dollar tomorrow' (Blaug, 1966:396). In other words, social discount rates must be applied to future economic returns and this strengthens the case for adult literacy because benefits from investment in adult programmes occur several years earlier. From the cost side, of course, the use of discount rates tends to favour investment in schooling since the later costs are incurred, the less is their real burden. In summary, Blaug suggests that if planners assume relatively high rates of growth in national income over a short time span, then the discounted benefits of literacy campaigns may well exceed the discounted benefits of schooling (Blaug, 1966:398). Conversely, a more long-run view with the assumption of lower current growth rates leads to an emphasis on investment in formal schooling.

In the absence of solid data concerning benefits accruing to schooling as opposed to literacy campaigns in Africa, we can hardly go beyond these general rubrics except to make one additional point. Although most planners in Sub-Saharan Africa have set very high target rates of economic growth, there is little evidence that these are, in fact, being realised in the majority of African nations. Rather, the story is frequently one of fairly low rates of economic development and, occasionally, stagnation. Under these circumstances and given a vastly increased output from the schools in some areas there is, in fact, no shortage of literates seeking employment. This is substantially true in the case of administrative and industrial opportunities in the 'modern' sector of African economies. These latter types of jobs account for a relatively small proportion of aggregate employment but there can be little doubt that in some African countries, employers experience no great difficulty in recruiting literate workers.

In the southern regions of Nigeria and Ghana, for example, the minimal conventional educational requirement for semi-skilled employment in numerous enterprises has already risen beyond basic literacy (Foster, 1963:152). In the urban areas, in particular, there seems little need to press for adult campaigns while in the rural reservoirs of illiteracy programmes must necessarily be focused on carefully selected populations. By contrast, in countries where adult literacy rates are below 10 per cent and where high economic growth rates have been assumed, literacy work with adults makes far more sense. In view, therefore, of the substantial differences in levels of literacy between African nations and in their rate of economic growth one cannot stipulate any fixed proportion of resources to be devoted to adult campaigns as against that allocated to the schools.

Literacy and the Language Problem

The extreme complexity of the linguistic situation in Sub-Saharan Africa implies that difficult choices have to be made concerning the language or languages whose written form is to be taught in adult literacy campaigns or employed as media of instruction in the schools.

For practical purposes, the nations of Sub-Saharan Africa can be divided into three main clusters. The first group comprises the Somali Republic, Lesotho, and Swaziland each of which exhibits a high degree of linguistic homogeneity. In the second category are nations such as Kenya and Uganda where relatively few major language groupings exist although there may be a large number of mutually intelligible dialects. Third, there are those countries typified by Nigeria where extreme linguistic fragmentation poses acute problems of language policy. This extremely varied situation is further complicated by the fact that the colonial powers very early adopted different policies concerning the use of African languages in the educational process.

In most of the former British territories, English has been retained as the 'official' language while multilingualism has been accepted as the norm. During the colonial period, attempts were made to develop orthographies of major African languages and by 1951 no less than ninety-one such languages were used in the schools of British territories (Unesco 1953b:17). As far as possible, these were employed as the medium of instruction in the first few years of primary schooling with English being taught first as a subject and then used as a medium in secondary schools. Literacy campaigns for adults were also based on local African languages.

The post-independence period has seen no radical departure from colonial precedents in most of the former British territories. Typically, an African language is used in the primary schools and in adult campaigns although there are local variations in policy. Thus in Uganda, primers are available in twenty African languages for use by children and adults but more advanced work can be done in only four local languages. By contrast, in Kenya, adults may commence work in their own local language, in Swahili, or even start learning English at an early stage (Dames, 1967:25–7).

Only Tanzania has decided to elevate a local *lingua franca*, Swahili, now spoken by some 60 per cent of the population, to the status of a national language. This decision reflects in part the efforts of the earlier colonial administration to diffuse this language as widely as possible through the schools. There are also signs of support for the use of Swahili as a national language in both Kenya and Uganda although this movement comes from very different quarters in the two countries. Opposition to Swahili in Kenya seems to be concentrated among Nilotic speakers while, paradoxically, in Uganda its use has their general approval. This may be due to Nilotic/Bantu political cleavages in Kenya and to a recognition by non-Ganda peoples in Uganda that Swahili now constitutes an effective rival to Luganda as an African national language (Mazrui 1966:60). It is too early to judge, however, whether sentiment might become strong enough to lead to the replacement of English by Swahili in these areas.

Belgian policy was substantially similar to that pursued in British territories and based on the premise that, as far as possible, both children and adults should first acquire literacy in the mother tongue. At the time of independence, therefore, grammars and dictionaries were available in some fifty languages and

Belgian efforts were reflected in a relatively high level of literacy among the African population (Unesco, 1953b:18).

In French, Portuguese, and Spanish territories the language of the European metropole was everywhere accorded official status and generally it became the medium of instruction in primary schools and in adult literacy campaigns. Some local variations existed: Malagasy was used as a bridge to French in Madagascar while in Portuguese and Spanish areas a local language could be used orally to teach the official language. Generally, however, little effort was made to use African languages for educational purposes and, as a result, few practical orthographies were produced (Unesco, 1953b:18).

Since independence little change has occurred in the language policies of former French territories. In Senegal, primers in Wolof and Purar are being tried out; adult campaigns in the Togo Republic first concentrate on Ewe and then French. In Guinea literacy can be acquired in all six main languages of the country (Pular, Soso, Maninka, Guerzé, Toman and Kisi) (International Bureau of Education, 1964:148, 1965:22,51). In spite of these experiments there seems no great drive to substitute local languages for French in the educational efforts of most francophonic countries.

Ethiopia remains unique. As in Tanzania an African language has been accorded national status but the reasons for this development have been different. In Tanzania, language policy has been a response to conditions of extreme linguistic diversity and a recognition of the widespread de facto use of Swahili. In Ethiopia, policy has simply reflected the political and social dominance of an ethnic minority who constitute some 20 per cent of the Ethiopian population. The language of that minority, Amharic, is, therefore, taught in all schools and is used in literacy work with adults.

It is clear that the factors that have influenced the different language policies pursued in Sub-Saharan African have not usually been linguistic in origin. Political pressure and the need to create a sense of national unity through a common language has often been decisive. This has led some countries in the post-independence period to emphasise a European language at the lower levels of schooling where it is clear that the alternative use of one or two African languages – however widely spoken they may be – is politically unpalatable to linguistic minorities. Ghana is a case in point and since 1951 there has been a systematic attempt to increase the quality and amount of English taught in the lower schools (Gold Coast, 1951a:1).

Although the employment of a European language can diminish 'vertical' cleavages based on ethnic or linguistic ties, its use by a minority enhances 'horizontal' cleavages within African nations. In other words, the language can be an agency of stratification separating a tiny educated minority from the mass of the population. Indeed, Fishman has characterised African states as examples of 'diglossia without bilingualism' wherein tiny de-ethnicized Western élites have no continuous speech community with the masses (Fishman, 1967:34). This is a considerable exaggeration since most members of African élites (however these are defined) speak both a European and one or more local African language. Nonetheless, it must be recognised that the ability to speak a European language is likely to become a criterion of élite membership.

Political considerations have perhaps been less evident in adult literacy programmes where pressure to substitute English or French for African languages has often stemmed from the economically derived motivations of their clientele. Particularly in urban areas, the occupational and income pay-off that stems from some facility in spoken and written English or French is perceived to be substantial. As a result, organisers of literacy campaigns have frequently discovered that the success of a programme is limited if no effort is made to teach a European language (Dickson 1950:11; O'Kelly 1959:25; Unesco 1953b:49; Uzoma 1948). Pedagogically, it is preferable that literacy in the mother tongue should be used as a bridge toward literacy in the official (i.e. European) language. Such considerations are not often decisive in the face of public demand and under these circumstances where English, for example, has been demanded, lengthy oral instruction in the language has had to be given before proceeding to any work in the mechanics of reading.

Questions of utility are also significant when a choice has to be made among African languages to be used as the medium of literacy. Demand for instruction is likely to be higher when such a language is widely spoken and is of demonstrable economic, political, and social utility. Thus the success of earlier literacy campaigns in Northern Nigeria was to some extent due to the already substantial diffusion of the Hausa language among other minorities and its already marked utility as a medium of spoken and written communication throughout the north.

Adults, therefore, are likely to adopt very selective attitudes to acquiring reading and writing skills in different languages. Yet the costs of literacy programmes are largely borne by public agencies not by private individuals. Once again if economic considerations are paramount some attempt to measure relative costs and returns is desirable. What are the unit costs involved, for example, in producing a functional literate in English as opposed to an individual who is literate in his mother tongue or in another African language? What are the differences in social and individual benefits as measured by life-income streams that accrue to literacy in a European as contrasted with a local language? The absence of data that would bear on these questions makes planning virtually impossible. At present, it can only be assumed that the benefits of functional literacy in a European language are probably high – at least for African workers in the modern sector of African economies – but, correspondingly, the costs of programmes that attempt to provide literacy in such a language are likely to be high in view of the far longer period of instruction required and the higher calibre of instructor that must be recruited to staff such programmes. It is at present impossible to indicate how much success adult programmes in Sub-Saharan Africa have had in producing individuals who are functionally literate in a European language, but the presumption must be that it has been extremely limited; costs, in fact, may not be much lower than those involved in producing an individual with equivalent skills through the formal school system.

But final policy decisions cannot ignore linguistic and pedagogical issues. Although specific languages may be of considerable utility, their advantages may be partially offset by the extreme difficulty of achieving literacy in them. There can be no doubt that an individual acquires literacy more quickly in his mother tongue or in a language that is closely related to it. Educationists therefore seem unanimous in their conviction that an individual should first become literate in his mother tongue and that this training should be extended to as late a stage as possible. Moreover, there is some evidence that persons can learn a second language more easily after having received early instruction solely in their own tongue (Unesco, 1953b:21). There can also be no doubt that learning can be greatly facilitated by the existence of adequate linguistic descriptions and orthographies and the role of the professional linguist is therefore crucial in the planning of literacy campaigns.

Thus if a choice is to be made between African languages to be used for educational purposes a general survey of the linguistic situation and a mapping of the distribution of speakers of various dialects is an essential first step. On the basis of such surveys a decision can be made to use a widely diffused language or a specific dialect of it for literacy purposes. Occasionally, it seems desirable to attempt a 'linguistic unification' of closely related languages and develop a standard form. This has been attempted, for example, with Ibo in Nigeria and the Akan languages of Southern Ghana. Most efforts of this kind seem to have been unsuccessful and, on balance, it has seemed preferable to take one existing dialect and accept it as the standard form (Dickens, 1953:115–21; Unesco, 1953b:21).

Even where linguistic descriptions of languages exist, they may be unsuitable for use by literacy workers. Descriptions prepared for strictly professional purposes may be virtually unreadable to anyone but a linguistic specialist. They may omit information that is vital to literacy workers, or alternatively bury it in a mass of less relevant detail. It is, therefore, imperative that special language descriptions that are both readable and usable need to be prepared by linguists working in close consultation with individuals responsible for planning literacy campaigns (Hayes, 1965:11–15). But it should be remembered that the first stage in the reduction of an unwritten language to writing typically involves orthographic devices which need not necessarily be carried over in materials designed for mass literacy programmes.

Efforts to modify existing orthographies that are inadequate from a linguistic viewpoint are likely to meet with limited success. Resistance to orthographic modifications are largely nonlinguistic in origin and are sometimes strong enough to prevent improvement even where it is recognized that ambiguities in reading and confusion in writing result. Change, therefore, may be possible only where such ambiguities and confusions are very substantial. There is, indeed, a pressing need for the development of techniques that would measure orthographic inadequacy and at least compensate for it in the preparation of primers and methods of instruction (Berry, 1958). Change must be approached with caution since orthographies that are deficient from a linguistic viewpoint may be reasonably adequate for the purposes of the literate himself. This much is evident in those parts of francophonic Sub-Saharan Africa where, in the absence of linguistically adequate orthographies of local languages, individuals have frequently used the French orthography for purposes of interpersonal communication.

Languages and Literature

Although from a pedagogical viewpoint it might be considered desirable to give every individual an opportunity to acquire literacy in his mother tongue, this is patently impossible in Sub-Saharan Africa. As a result, adult literacy work has had to be conducted in relatively few African languages. If use of literacy is the real touchstone against which the success of these programmes is to be measured, then the volume of publication in local languages becomes a useful guide to progress. Few literacy specialists have failed to point out the need for an extensive 'follow-up' literature if newly acquired literacy skills are not to deteriorate (Anon, 1957a; du Sautoy, 1956; Spaulding, 1958). Individuals cannot be expected to maintain these skills through the re-reading of an elementary primer used in a literacy campaign or the occasional perusal of a government leaflet. There is therefore a need for the production both of books specifically designed for an adult readership and regular periodicals or daily newspapers. Without such developments, it must be conceded, much of the investment in literacy programmes is wasted.

Provision of literature that is adequate both in amount and content requires heavy production expenditures and poses formidable problems of distribution where regular market outlets do not exist. It follows that enterprises designed to produce materials in local languages are not commercially feasible except where these languages are spoken by substantial populations. There is something of a vicious circle in this situation: levels of literacy cannot be maintained or raised without the development of a suitable literature while, at the same time, publishing enterprises are not viable unless there is already a broad basis of literacy and substantial public demand.

The current status of African language publication therefore is hardly encouraging. A considerable literature has developed in Twi over the last hundred years in southern Ghana, for example, and the production of materials in Swahili is increasing in Tanzania, but these developments seem to be the exception rather than the rule. In most areas, publication in local media seems to have depended heavily on government or mission subsidy. Indeed, in British territories during the colonial period ten Regional Literature Bureaux were established by governments to facilitate the production, publication, and distribution of materials in African languages (Roberts, 1955; 1956). Most of these Bureaux have continued to function with government aid in the post-colonial period, but they are not usually extensive enterprises catering to a mass readership.

It is, in fact, difficult to estimate the total volume of materials now published in African languages. We do know that in one field – newspaper production – progress has been limited. Out of seventy-six daily newspapers published in Sub-Saharan Africa in 1965 only ten were in African languages and nine of these were published in Ethiopia, Kenya, Tanzania and Uganda (Ainslie 1966:245–51). Current circulation figures for weekly or monthly magazines or newspapers are not available but these would seem to be usually government or mission sponsored. Further, in the thirteen Sub-Saharan countries (excluding the Republic of South Africa) for which data were available in 1964, a total of only 1,165 book titles were published (United Nations, 1965:717–20). (These figures included all types of non-periodical publications including first or subsequent editions, pamphlets and major Government reports.) It can be safely assumed that the bulk of these materials were in European languages. Over most of Africa the conclusion can only be that, so far, a vigorous press publishing in local languages has failed to develop.

Official subsidy or mission sponsorship cannot provide a permanent basis for a viable publishing industry. Output is necessarily restricted and there is likely to be severe limitation on the variety of materials available to readers. African authors, in particular, show a reluctance to write in local languages when they recognise the limited audience to which they can address themselves. A low level of demand, therefore, imposes both quantitative and qualitative constraints on publication.

It can be suggested that as literacy increases the demand for materials in local languages will necessarily increase and an economically viable local press will emerge. This development is problematic. It is notable that the most outstanding example of a non-subsidised, commercial press in Sub-Saharan Africa has occurred in Eastern Nigeria with the growth of a trade in inexpensive 'chapbooks' that are retailed in most larger towns (Schmidt, 1965). The content of these volumes would appear to reflect the preoccupations and interests of Nigerian readers (as distinct from those of government or mission agencies) and it is notable that they are most frequently written in English. Although the total population speaking a variety of Ibo dialects in the area now stands at over eight million with an adult literacy rate that is probably around 30 per cent, there is little indication of the growth of a major local language press. It would be premature to assume that parallel developments will occur in other parts of Sub-Saharan Africa but at present there is little evidence that African languages for which orthographies already exist will be used as the basis of written mass media.

In effect, large scale publication in non-European languages is likely to develop in the near future only under particularly propitious circumstances.

These exist in Tanzania and perhaps Kenya and Uganda, but the situation is far less promising in other parts of the continent. It is, therefore, unavoidable that many of the outcomes of literacy campaigns will be dissipated through lack of availability of published materials that meet public taste.

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Illiteracy in Tunisia: An Evaluation

Mohamed Maamoori

Aim and Scope

Education being the most important conditioning factor of literacy it is therefore necessary for an assessment of illiteracy in a country to include both a description and an analysis of the relevant features of the educational system of that country. This paper will cover a hundred years of Tunisian education and adult education from 1875 to 1975. It will primarily deal with the nature and dimension of the literacy problem in an Arab country such as Tunisia, which from a linguistic point of view is characterised by a diglossic but also a bilingual and bicultural situation.

Introduction

Even though the world illiteracy rate had in 1970 decreased from 39.3 per cent to 34.2 per cent,[1] the UNESCO figures made public at the last Persepolis conference show that there are presently 800 million illiterates in the world. This means that there are 50 million more illiterates now than ten years ago, when Iran convened the first international meeting to discuss and eventually put an end to the rapid spread of world illiteracy.[2] This dramatic situation is more characteristic of Third World countries and in particular of Arab and African countries, where the adult illiteracy rate for men is still estimated at a high of 75 per cent while the figure for women's illiteracy is a staggering 88 per cent.[3] Four 'developing' countries were recently quoted as having the highest illiteracy rates. One notes that two of them, Morocco and Libya, are Arab countries. Some claim that progress in literacy follows closely in the steps of industrialisation and economic growth, making the rich richer and more educated and the poor poorer and more culturally deprived. It seems however, that the state of literacy of a country depends to a great extent on the general state of development, both political and socio-economic. Since it is generally conditioned by the surrounding political atmosphere, literacy more often than not ends up being a political problem or at least a politically-coloured situation. Illiteracy on the other hand, is an essentially linguistic problem which is largely conditioned by educational, psychological and social factors. It can be aggravated by the idiosyncratic properties and inadequacies of a linguistic situation typical of Arabic and of any of the Arab countries. For this reason, this paper will devote itself first, to education in Tunisia with a special emphasis on adult or literacy education, and then to an evaluation of the part played by the Arabic language and the Arabic linguistic situation in maintaining the state of illiteracy in the Arab world.

Education and Literacy in Tunisia (1875–1975)

Traditional Education in Pre-Independence Tunisia

Traditional education in Tunisia in the nineteenth century and up to the 1950s was based on an informal two-level system made up of: (a) the *kuttāb* and (b) *Žami*^c^ *z-Zitūna*. The *kuttāb* is probably the oldest form of primary schooling in the country dating back to at least if not before 732 A.D., which is the founding date of *Žami*^c^ *z-Zitūna*, the North-African counterpart of the *al-Azhar* in Egypt. Its curriculum was limited to the memorisation of the Koran and to an elementary and in most cases inefficient introduction to Arabic writing. The *kuttāb* instructor or *middib* (from *mu'addib* 'educator' in Classical Arabic) was at best and mostly in urban areas, a graduate of the *Zitūna*, where he got an intensified study of Classical Arabic (= CA) and Islamic principles and traditions.

He had no pedagogical training and was only known for his enforcement of a severe and by now legendary form of discipline. Who doesn't remember even now the *falqa*, that medieval instrument of torture which keeps the child's feet tied for steady caning? The *kuttāb* was exclusively open to boys between the ages of four and seventeen. Most beginners spent a good deal of their daily morning and afternoon sessions going through the *fātihah* (the 'Pater Noster' of Islam) in a form of group chanting which did not always respect the pausing habits of CA, the language of the Koran. The common distortion among *Kuttāb* pupils of the CA reading process is the consequence of an oral method which is based on sheer automatic repetition of sentence after sentence of the holy passage but without the necessary accompanying understanding. This type of mistake is reminiscent of those which, it seems, are quite common among Christian children and which gives *round yon Virgin* in the Christmas carol 'Silent Night' a totally different semantic interpretation, in which a person by the name of John Virgin is referred to as 'round'.[4]

The initiation to writing was much slower. After a period varying between one and three years, the pupil was given a clay-coated wood tablet on which first elements of script and then Koranic passages were pre-drawn, and was asked to go over the *rašma* (pre-drawn forms and shapes) with ink and a bamboo pen.

The *kuttāb* schooling was the only form of education before 1875, which marks the beginning of an important educational reform, or 1881, which marks French occupation and other educational changes. Foster (1973) estimates the number of its pupils in 1890 at 21,490, which represents a mere 1.6 per cent of a population of approximately 1.3 million. Few proficient students were able to go on to the more advanced form of education, which was institutionalised at the *Zitūna* and which prepared for such professions as Islamic court judges, notary publics or religious community leaders.

The *kūttab-Zitūna* education, which was provided under a form of religious trusts called the *waqf* system, persisted until the 1960s and produced comparatively few literates in the urban areas and even fewer in the predominantly rural parts of the country. It helped maintain the authority of a religiously-biased ultra-conservative class which capitalised on the almost general spread of illiteracy and profited by it. The ^{c}*dūl* (public notary) regulated the legal structure of pre-Independence Tunisia: they inscribed on paper and in a handwriting that has become typical of their profession, marriage contracts and divorces, wills, and property and inheritance settlements. A great deal of the ^{c}*dul's* prestige came from the fact that very few people could read their scribbling (cf. Appendix A.). The *kuttāb* instructors also took advantage of the distancing characteristics of writing and conferred upon it an additional sacrosanct feature. Written talismen were used to stop all kinds of ailments (*ktība*) or to turn away dangerous reptiles and insects (*brayya*). This religious charlatanism is very surprising in an Islamic country where people should have heeded the ultimate example of God giving his prophet Muhammad his first adult literacy class.[5]

Kheirreddine and the Early Educational Reforms

Kheirreddine was the first reformer who thought about changing this traditional educational pattern. He founded the *as-Sâdiqiyyah* (College Sadiki) in 1875, which along with Arabic studies in the early grades introduced instruction in Turkish, French and Italian. The first Sadiki alumni continued the same reform movement by founding in 1896 *Žam^{c}iyyat al-Khalduniyyah* whose aim was to provide a complete school curriculum which explicitly included the sciences in Arabic, but also to spread the Arabic language among the Tunisian people by the organisation of public lessons, talks and night classes for adults. Thus, the first structured literacy education experiment in the history of the country was an unavowed political action which was led and supervised by young social leaders such as Bechir Sfar, Salem Bouhajeb, Amor Baccouche and Abdeljelil Zaouche. This first reaction to the cultural and linguistic invasion of the French language after the beginning of the French Protectorate in 1881 was soon followed by the founding of still another organisation in 1905: *Žam^{c}iyyat Qudamâ as-Sādiqiyyah* (The Association of the Sadiki Alumni) which clearly stated its aim as being the dissemination of Arabic among the graduates of French secondary schools and among 'the people' through the medium of public classes and lectures. It is true that French was taking so great a proportion of teaching time that it prevailed as the language of instruction not only in the schools which were reserved for the children of French nations and other European settlers, but also in the new 'Ecoles Franco-Arabes' (referred to in the singular as *maktab*) and in the 'modernised' koranic schools (referred to in the singular as *madrasa*). This situation, which lasted until about 1954, made French the favoured language of an 'official' type of literacy. It became an absolute pre-requisite for any civil service position. Literacy in French enabled Tunisians to pass the 'Certificat d'Etudes Primaires' (end of the primary school degree) and get an exemption from the French military service. French was the key to social promotion but it was almost completely inaccessible to the wide majority of Tunisian children who, if and when they had access to a primary school education, had no extra-mural opportunities for learning it. Only 6.66 per cent of school age children were accepted in Tunisian schools in 1930,[6] representing 1.25 per cent of the Tunisian population.

President Bourguiba's Neo-Destour Party, which supplanted the old Destour Party in the early thirties, became aware of the general lack of education, which was spread throughout the country, and of its slowing effect on the shaping struggle for independence. It included a claim for more Arabic in the educational system in its 1936 political platform,[7] collected funds for building private schools in the deprived rural areas (makātib al-^{c}urūš), and opened all its organisational branches to literacy education classes where illiterate adults were taught traditional subjects such as reading, writing and some elementary mathematics, along with an elaborate initiation to political action and patriotic values. Literacy, which was before that date mainly a tool for achieving social or religious goals, became a means of liberating the Tunisian individual from the shackles of colonialism.

It is very hard to assess the effect of this 'national' campaign on illiteracy. It does not seem to have done much, however, in the way of finding a remedy for an impossible situation. The literacy status of Tunisia at the eve of independence is reflected in the official figures, which are given by the *Division de l'Instruction Publique* for November 1953: 11 per cent of eligible Tunisian school age children attended primary school, which represents 0.4 per cent of a population estimated at about three and a half million.[8] As for the illiteracy rate, there are no official figures for that period. But the situation must have been identical with that in Morocco or Algeria, which registered in 1954 a 92.3 per cent illiteracy rate, with a differential rate of 87.7 per cent for men and 96.3 per cent for women.[9] Another important figure with a differential value is the one which evaluates the number of bilingual literates in 1954 at less than 0.029 per cent of the country's population.[10]

Literacy Campaigns and Educational Reforms in Independent Tunisia (1954–1975)

As soon as Tunisia got its 'internal independence' in 1954 the Neo-Destour Party started another general literacy campaign, which was labelled 'Madrasat aš-Ša^{c}b'

(The School of the People). This huge Party-Government literacy campaign had the active support of such influential party members and militants as Ali Balhouane and Hassib Ben Ammar. Classes started all over the country with popular enthusiasm, and used primary schools, Party buildings or even government offices. There were, however, no adequate textbooks for adult illiterate teaching and no supporting administrative organisation. The teaching methods were completely improvised by the instructors who were mostly primary school teachers or untrained but literate Party members. This improvisation and the organisation of classes, which did not take into consideration age and socio-economic factors, explain the ensuing lack of motivation and low attendance rates.

In 1958 it was decided that literacy education was a technical problem which was part and parcel of an overall educational programme. It was thus transferred to the Ministry of National Education where it became on 1 October 1958 the *Centre National de lutte contre l'Analphabétisme et d'Education Sociale*. It is interesting to note that as early as 1958 the Tunisian authorities were not only interested in an urgent eradication of illiteracy but also in a certain form of social education which will enable the new literate to take a more active part in public life. It was clear for Mr. Tahar Guiga, the Director of the Centre, that if 'education' was meant to prepare for leadership (*formation des cadres*), the combat against illiteracy 'must enable the illiterate person to work better, to have a higher production, and to integrate (himself or herself) better'.[11] This functional view of literacy work was not, however, immediately implemented, since the Ministry of National Education was then faced with the extremely urgent task of universal primary school education for Tunisia's very young population.[12] The beginning of the important Messadi Reform in education in 1958 coincided with the starting of an experimental period in literacy education which was supposed to provide the missing background information. Four adult education centres only were created: (a) Kairouan (urban environment); (b) Port of Tunis (young unskilled workers); (c) Djebel Lahmar (rural area with urban aspirations) and (d) Jendouba (rural). This reduced experiment covered 450 adults altogether, mostly males, but it allowed the centre to turn its efforts to specialised teacher training and material elaboration and production. Two years of preparation and actual class-experimentation in the Tunis and close suburb centres produced three adult readers, which included a primer in five volumes (to incite the psychological motivation of the adult learner by simulating fast and easy progress) containing the basics of the writing-reading skills: a second year textbook aimed at the 'abc' of Tunisian culture; and a third year textbook oriented towards the outside world. At about the same time the centre started the publication and free distribution to adult learners of *IQRA*, a four-page (which soon became eight pages) newspaper to encourage the new literate adults to read, and thus retain their recently acquired habits. *IQRA*, which became some sort of a 'literacy newsletter' played an important role in promoting higher motivation rates among competing centres.

It started with oversize print letters but then changed to the letter and character sizes used by regular newspapers and books. This move was meant to help the adult student change smoothly and with no extra difficulties from the special literacy materials to normal printed texts. The Centre also produced three types of supplementary literacy readers with a graded use of contextualising visual aids.

This intense preparatory work was all the more needed as the literacy campaign took on national characteristics in January 1959, with the creation of Governorate (regional administrative division) centres.

Between 1959 and 1961 many strategically important literacy programmes were implanted in sensitive areas of development such as agriculture, (Medjerda Valley centre and the Center of the Office de l'Enfida), mining, (centres of Metlaoui and Gafsa), and fishing, (the centres of Mahdia, Adjim and Kerkena). In 1961 the number of adult participants was estimated at about 10,000 while the number of teachers went from a mere 15 (in April 1959) to 60. One must add to the above mentioned figure at least another ten thousand participants in the Tunisian army and national guard programmes and other Ministries' programmes, since at that time the Ministry of National Education was not uniquely responsible for all Educational programmes.

In 1961 the literacy education nucleus was transferred to the newly instituted Ministry of Cultural Affairs (which became in 1962 the Secretariat of State for Cultural Affairs and Information). Prudent literacy work continued and in May 1963 the Division of Adult Education started the well-documented and much discussed *Tazerka project*: 208 men and 179 women aged 14 to 45 divided into 20 classes and all from a typically rural environment. The relatively low success of the Tazerka experiment (a mere 40 per cent completed the course) is certainly compensated for by the amount of information that came out of it. Two months after the beginning of that experiment the *Journal Officiel de la République Tunisienne*[13] institutionalised literacy education. It created a literacy degree, the 'Certificat d'Education Sociale' and set the terms of the exam as follows: (a) a written part (dictation, writing and mathematics) and (b) an oral part (reading, and culture, i.e. history-geography and/or civics-religion). Reading and writing represent two-thirds of the final exam. which comes at the end of a two-year teaching period. Each year represents 225 class hours divided into three ten-week periods. Classes meet five times a week (from Monday to Friday) at the rate of an hour and a half daily. About ten hours out of the fifteen hours, resulting from the continuation of first and second year weekly classes, are devoted to reading and writing.

By 1964 one notes that the Messadi educational reform was far from achieving mass education, even though 62 per cent of eligible children were in the primary school system instead of the 44 per cent of 1959–60. The Messadi educational structure was a 'French pyramidal system'.[14] It was overly selective and was plagued by ineffective teaching and competitive examinations which did not allow more than 40 per cent of the primary school pupils to pass on to the secondary schools, thus exposing the other 60 per cent to illiteracy, semi-illiteracy and unemployment. In 1964–65 about 700,000 children were in school, but this was barely enough for a country which was trying, after the 1964 Bizerta Congress, to go through a major reorientation of Party and Government policy towards building a more egalitarian society through major structural reforms and planned economic development. The *Plan Quadriennal 1965–68*, which was meant to mark the 'lift-off' of the Tunisian economy, included a section on the literacy problem in the country, in which it was mentioned that, on 1st January 1964, 250,000 out of the estimated 1,700,000 illiterates took an active part in the economy.[15] These illiterates belonged to the 'secteur organisé' (areas where social groups participated in any form of developmental activity) and were therefore extremely important to the economy planners who decided to set up and fund a four-year literacy programme whose purpose was to give all of the 250,000 workers the fundamentals of literacy education. At the same time they hoped to start some form of 'mental development' which would help the process of social change, summarised in that major theme of the sixties in Tunisia 'La lutte contre le sous-développement' (the struggle against under-development). 574,000 dinars (a little more than a million US dollars) were ear-marked for this 'urgent' literacy campaign which would need a total of 483 teachers. Literacy became an important national problem with important economic repercussions. It therefore needed a strong and independent administrative structure. This structure was provided in 1965 by the creation of the *Institut de l'Enseignement pour Adultes* (I.E.A.), commonly referred to as the *Office de l'Education Sociale.* From the outset twenty two villages were selected in the twelve Governorates of the Republic. This functional form of literacy definitely favoured the 'secteur organisé' and excluded the great majority of Tunisian illiterates. But literacy seen as a tool of development and politicisation could not be so easily separated in a young country such as Tunisia, which was completely open to rapid social change. The *Parti Socialiste Destourien* (P.S.D.) took control of the literacy campaign to such an extent that Remiche (1968) speaks of a 'permanent contract' between the P.S.D. and the I.E.A. The Party and Government's preoccupation with this vital problem can be seen in the personal support given by President Bourguiba, who attended the '*Social Education and Combat of Illiteracy Day*' which took place in Bizerta on the meaningful date of 15 October 1966.[16] The then all-powerful Minister of Planning and Finance, Ahmed Ben Salah, also attended the 'First National Seminar on Social Information and Adult Education' which met in Monastir, (8–10 August 1967), to assess past experience and evaluate planning and future objectives. The Monastir meeting reaffirmed the necessary connection between literacy work and economic development and social and cultural promotion in the country. It also projected a fifteen year period of time in which 1,500,000 adults would be made literate.

One of the final resolutions of this meeting foresaw the conversion of the I.E.A. into an 'Institute of Social Education Studies' and ultimately into a

'Université Populaire' (People's University). Literacy education had obviously become an important political tool during the second half of the sixties with the general mobilisation of the country and the growth of a cooperative movement which included all sectors of the economy, from production and consumption to marketing and credit.[17] By the end of 1966 there were 206,633 'co-operateurs' of all kinds with a total of 779 co-operatives. This membership represented about 10 per cent of the adult, rural population. It is quite probable that by 1967 a fourth of the entire active population of Tunisia had become part of this 'superstructure', which was centralised into Ben Salah's 'super-ministry'.[18] Being probably the only one who was fully aware of the real dimensions and of the political impact of this new socio-economic structure, but being at the same time conscious of the fragility consequent on its too fast rate of expansion, Ben Salah gave his full support (and that meant at that time the full support of the President, the Party and all the leadership) to the I.E.A., which effectively became part of the Party-Government propaganda machine. As such, the I.E.A. and therefore all literacy projects acted as a vehicule for the popularising of the cooperative principle and was especially geared towards an easier implantation and a faster development of the agricultural cooperatives, which were the stumbling block of Ben Salah's socialistic agrarian reform. No secret was made of the covert political objectives of the much publicised UNESCO-funded micro-experiment of the 'Erissalah' cooperative in the Mornag area, which was defined as 'une oeuvre de développement intégré' and 'une opération de transformation du milieu considéré dans sa totalité: milieu humain et milieu naturel.'[19]

The first 'Erissalah' primer is an excellent example of this socio-political indoctrination since it starts with the two sentences: 'Long live our cooperative' and 'I am a cooperative member' and goes on to include the term for 'cooperative' (or a derivative) exactly 58 times out of a total vocabulary not exceeding 800 words.

Along with the politicisation of literacy education in the late sixties, one could also notice the trend towards a functional view of literacy which became work-oriented, selective and qualitative and which acquired a professionally oriented pedagogical content. One finds in the Mornag texts interesting though very basic information about vine pruning, soil depletion and mildew. This limited scientific and technical introduction does not constitute enough training to bring about a valid change in the productive structure or to increase the investment returns of the country's agricultural equipment. In 1967, two-thirds of the country's 18,000 tractors were out of order because the agricultural workers did not know how to operate and maintain them. The Tunisian authorities thought, and perhaps rightly so, that literacy education could provide the answer to this serious problem. In the summer of 1970 an 'operational seminar'[20] took place in Tunis to study the progress and problems of three agricultural cooperatives. It mainly devoted itself to the problem of aims and motivation, which led to the topical question of active and productive participation in the cooperative movement. The pedagogical information sheets which were given to the Mornag literacy teachers constantly reminded them of the fact that they themselves were 'pré-coopérateurs' just like their students and that they consequently had to promote a favourable atmosphere to the attaining of final cooperative membership status for all.

This general look at literacy in Tunisia in the late sixties is not complete if one does not mention even briefly the short-lived literacy programme on the Tunisian television network. This programme, which was meant to be the answer to a generalised and far reaching literacy campaign, started in January 1968, in 26 monitored centres. Three thirty-minute sessions were broadcast weekly and two-thirds of the time (i.e. an hour per week) were devoted to basic literacy skills. An interesting aspect of this programme was the publication by *al-^{c}amal,* one of the two most important dailies in Arabic, of the reading passages used on TV for the benefit of the participants in the adult literacy classes.

The eclipse of the national literacy campaign from the limelight after the failure of the cooperative movement and the demotion and subsequent trial of Ahmed Ben Salah coincided with the relative failure of the Messadi reform and the reopening of the 'dossier de l'enseignement' in the early seventies to look into the acute problem of drop-outs, or as Foster (1973) calls it 'wastage'. By the end of 1970 there were no more TV adult literacy programmes and the I.E.A. lost its autonomous nature and became again a 'division' of the Ministry of Social Affairs. The new division lost, of course, most of the funds that were made available in the 1960s by the Tunisian government and Unesco but it continued its work on a more or less reduced basis and with more of a tendency towards social education. An operational seminar took place in Nabeul in September 1972 to discuss problems and methods connected with literacy education and family planning.[21]

The publication of *IQRA* has been kept up until now, even though there is talk about calling it the 'magazine of social affairs'.

The present literacy situation in Tunisia can be summed up in the following figures for participants, which were made public by the Minister of Social Affairs on 8 September 1975 (a) Regular adult education participants: 5,300; (b) Army adult education: 687; (c) 'Permanent Education' classes for semi-illiterate adults: 3,089; (d) Literacy education classes for Tunisian migrant workers' children: 5,850; and (e) General Education classes, for the primary and secondary school drop-outs under 18, held in vocational training centres: 2,620.

Illiteracy and the Linguistic Situation in Tunisia

The linguistic situation in modern Tunisia is characterised by a state of diglossia,[22] which is aggravated by a French-Arabic bilingualism. This complex and very serious plurilingual situation presents the following features which are relevant to education and literacy education. The French language still remains the vehicular language to a large extent of education and government. It is exclusively used in the technical and scientific fields and remains the favoured medium by which is carried the predominant part of commercial and industrial public transactions and correspondence. French serves a relatively small and primarily urban privileged class, which Payne (1974) estimates to be 600,000 or approximately an eighth of the Tunisian population. From time to time one feels that French is a prestige symbol and functions as a 'shibboleth' in contemporary Tunisian society, which is still going through some form of cultural alienation arising from the bi-cultural bilingual situation.[23] In addition to French one finds in Tunisia a typical diglossic situation in which two closely related languages, *Modern Standard Arabic* (= MSA) and *Tunisian Arabic* (= TA), are used side-by-side but with a clearly defined role differentiation. MSA can probably be defined best as the common form of pan-Arab mass-media. The first article of the Tunisian Constitution states that Arabic (i.e. MSA) is considered to be the official language of the country, even though nobody speaks it natively. The use of MSA is limited to formal religious, political or cultural situations and sounds stilted or pedantic when used elsewhere. Moreover, MSA embodies an extremely important pan-Arab literary heritage in a primarily written form. MSA is therefore considered to be the 'classical' language which, because of highly and explicitly patterned grammatical and lexical structures, is alone capable of expressing abstract, complex ideas and concepts. The MSA linguistic structures have to be acquired through a formal schooling process which has over the ages made MSA the traditional language of education. The important linguistic cleavage which exists between TA and MSA inevitably creates problems for the Tunisian school children who, to become literate in Arabic have, to put it in Foster's slightly exaggerated terms[24] 'to learn Classical Arabic, which is rather like modern British and American children having to learn Anglo-Saxon (sic) before they can attempt to write or read personal letters'.

The French-MSA dichotomy in Tunisian schools is, it seems, partly responsible for the high drop-out rate which is draining an already extremely costly educational system. In 1974, the annual budget of the Ministry of National Education reached over 40 per cent of total government spending. The acquisition process of the basic linguistic skills in French and MSA by Tunisian children is definitely slowed down by the lack in both cases of extra-mural reinforcing structures and opportunities. This serious problem has been aggravated over the past five years by the confusion which followed the various official changes in the year of introduction of French in the early primary school classes, and also by the general reduction of the number of schooling hours. As a result it takes an average period of eight years to complete the primary school cycle instead of six, and 46 per cent of the pupils do not even complete that cycle, while only 40 per cent of those who complete it pass on to the secondary stage.[25] The drop-outs from the primary education system fall immediately into a state of semi-illiteracy in MSA, in which they can only read simple individual words and very easy sentences through their average knowledge of the Arabic alphabet. In all cases they have absolutely no knowledge of French and almost no ability whatsoever to use the Latin script. In addition they are only a few years from a state of complete illiteracy, through non-use of their skills, after which their numbers will swell the ranks of Tunisian illiterates.

The linguistic duality which exists in the Tunisian educational system and is detrimental to its efficiency was avoided in adult education by a deliberate rejection of French even though French has, owing to the 'mission civilisatrice française', always been the language of upward mobility, which is interpreted as social promotion and economic opportunity. This choice was probably dictated by the politically emotional atmosphere found in a country which had just acquired its independence from French colonialism. The choice of MSA perhaps also shows a realistic assessment of the socio-geographically limited use of French in Tunisia and particularly in those parts of the country which were most in need of literacy education. It might be argued there was very little choice between French and MSA and even less between MSA and TA, which in this diglossic situation is considered to be primarily oral and very low in cultural content. TA could not be, according to one of the first directors of the literacy campaign in Tunisia, the language of 'intellectual promotion'.[26] He should rather have said that TA could not be the language of socio-political communication and information since it is obvious from our previous account that no literacy campaign in this country ever had any other objective. This is so because one naturally thinks of MSA when thinking about written Arabic. MSA is exclusively used in the Tunisian press over and above TA, which appears only in the migrant workers' newspaper *bilâdi*. The choice of MSA for adult education, seen as the acquisition of basic reading and writing skills, seems to be a logical one. Any literacy teaching in TA would have been laughed at and looked down upon by the potential literates themselves, who would have considered it a sub-standard and therefore useless form of education which was not likely to secure them a better job or improve their low social status. If being confined to Arabic (i.e. MSA) is an indication in the bilingual Tunisian context of educational failure, limited employment prospects and a narrower range of social contacts, being confined to the vernacular (i.e. TA) is regarded as tantamount to having no education at all.

Because of the attitudinal factors which characterise the linguistic situation in Tunisia, the overall motivation of the participant in adult education is very low. Bouhdiba (1968), Remiche (1968), Rabah (1970) and Eches and Wald (1971b) all report a general form of external motivation consequent upon the social pressure resulting from the national literacy campaign. They also notice that in most cases adult literacy students show that they are motivated by what appears to be a very vague notion of 'culture'. They want to 'educate' themselves. They want to be able to read books and magazines and in general to be informed of what is going on in their society and in the world, instead of remaining, as the Tunisian saying goes, 'like God's cows in God's pasture'. The aspiration of the adult education students towards culture and information was a fiction which must have been induced by the themes and slogans of the national literacy campaign propaganda. Their expectations were unrealistically high in that the two-year literacy programme would not and could not have given them the *simple literacy* which would have enabled them to read and understand simple sentences or simplified and lexically graded texts.

Allal and Ayad (1969) and Simmons (1972) attest the claim of the adult literacy authorities, who equate the level of the adult participants who successfully pass the second year of adult education courses with the level of fourth year primary school pupils. Simmons (1972) also shows that an additional third year is definitely needed to enable the majority of the participants to achieve a level of simple literacy. This situation is certainly influenced by the already mentioned lack of strong motivation, but one can safely assume that it is at least partly conditioned by the diglossic feature of the whole literacy environment in Tunisia.

From his (or her) first formal contact with literacy the adult learner is subjected to a bimodal educational experience. TA is the only languaged used for any explanatory situation while MSA is from the start introduced as the written language. This is sound from a socio-linguistic point of view, even though it does not help the acquisitional process of the linguistic skills because the adult illiterates would absolutely refuse to place themselves at the outset in a false social situation by speaking what they usually refer to in the vernacular as the *fuqhi* or the 'jargon of the learned'. Those in charge of the literacy programme were aware of this attitude and they knew that they had to take the linguistic cleavage existing between MSA and TA into serious consideration. Moreover, they were interested in the 'global method' and wanted to prepare new teaching materials in which reading and writing were synchronised. The O.A.E. Mornag textbook (1968) is a good example of this innovative pedagogical method since it follows the by now quite well-known reading pattern, which goes from *sentence* (in MSA of course) to word(s) to syllable (e.g. the definite article) to letter and then back to word(s) and sentence(s). To be successful this word-centred method has to select its lexicon from the lexical common core which MSA and TA share. This is not a very difficult task and the two volumes of the O.A.E. literacy textbook: *Sabīl al-Ma*^{c}*rifah* (The Path of Knowledge) succeed in partly briding the gap. If one looks at the first reader (about 1,500 words) one notices that only seven words are worth commenting upon. One of them, the word for 'cat' *hirrun* should not have been used because its MSA synonym *qiṭṭun* would have been easier and closer to TA *qiṭṭ* or *qaṭṭūs*. Two other words: *raṣifun* (pavement) and *ḍifda*^{c}*atun* ('frog') present the extra difficulty of competing with currently used TA counterparts: *zuṇṇār* and *žrāna*. As for *manžamun* ('mine'), *žarrārun* ('tractor') and *miĥṣadatun* ('combine harvester'), the authors had to make a choice between introducing newly coined MSA words or using the familiar TA loan-words which are respectively *mīna* (from Fr. 'mine'), *ṭrakṭūr* (from Fr. 'tracteur') and *baṭṭūza* (from Fr. 'moissoneuse batteuse'). Their choice went to the first solution because of the existence of a pervasive trend towards arabicisation.[27] The last word *riwāyāt* (plural of *riwāyatun* 'play') is used with its TA meaning (different from its original meaning in MSA, 'testimony'). It is interesting to note that the second volume of *Sabīl al-Maᶜrifah* introduces the MSA synonym which is *tamθiliyyatun* but side by side with *riwāyatun*, with the latter acquiring a definite explanatory function in that position. Being specifically written for a 'functional literacy' programme, the Mornag textbook adopts a more functional attitude towards the MSA-TA dichotomy. It uses a very simplified form of MSA and does not hesitate to use TA words and even foreign borrowings. Two French words *azote* ('nitrate') and *amonitre* ('a chemical fertilizer made of ammonia and nitrate') and an English one, *mildew*, are used because they are already part of the basic vocabulary of the agricultural workers of the area and also because they have no simple MSA counterparts. The word for 'copper sulphate', however, *az-zanzār* is a TA word which happens to be very close to the MSA equivalent *az-zinžār*. The choice of a TA word because of its easy phonetic identification is also found in *at-tafqīs* in which the loss of the final emphasis is graphemically represented in the Arabic text but where one also finds a TA morphological pattern which replaces what should have been *al-faqṣ* in MSA.

Some TA agricultural terms are used because they have no counterparts in MSA. We find such words as *al-bayyaða* which is a common plant disease in the area, *al-qawāris* 'citrus trees', *dūd al-fulful* (from TA *dūd l filfil* but with a slight shift towards an MSA pronunciation) for a worm which attacks pepper plants and *an-nažm* which is the local term for a special type of weed. The Mornag textbook writers thought about using a more general word for English 'weeds' but they eventually came up with the locally understood half MSA-half TA *al-ħaša'iš al-žāliyyah*, instead of using the by now quite common MSA term *al-ħašā'iš aṭ-ṭufayliyyah* perhaps because of the possible confusion of MSA *ṭufayliyyah* with the TA word for 'clay' *ṭfal* which is introduced later on in the book with an MSA pronunciation (*aṭ-ṭaflu*) and as a gloss to its MSA synonym *aṭ-ṭīnu*.

The deliberate 'Tunisifying' of the Mornag literacy textbook accounts for the existence in that textbook of words such as *az-zabr, al-γubar* or *'ataθabbatu min* which all have an MSA meaning which is completely different from their semantically differentiated TA meaning. *Al-γubār* for instance is used with its TA meaning of 'manure' while it means 'dust' in MSA, which in TA is *γabra*. In spite of their commendable efforts the Mornag textbook writers *did* however use difficult MSA words for which the lexical common core between MSA and TA could have provided more accessible items. We find good examples in the MSA verb *žanā*, which could have been replaced by its synonym in both languages, *qaṣṣa* 'to cut' because of *žanā*'s possible confusion with its TA meaning, which is 'to commit a criminal act', and in the MSA adjective *saqīmah* which could have been replaced by the MSA/TA *mariðah* 'sick' (Fem/sg). The Tunisian literacy experts and educators were very much influenced by what Paulo Freire calls the 'psycho-social; integrated approach'.[28] They introduced in their textbooks all the topical MSA phrases and words which were related to the socio-political context of modern Tunisia such as *tan im an-nasl* 'family planning', *muršidatun 'ižtimā ᶜiyyah* 'a (female) social worker' or *al-'intažīyyah* 'productivity', without forgetting, of course, all the useful 'cooperative movement' vocabulary. As a matter of fact, these highly specialised MSA terms were made easier for the Tunisian adult illiterates since they had been already turned into 'household words' by the official mass media.

The 'Tunisifying' of the literacy materials perhaps achieves its short-term functional socio-political aims but it is detrimental to the final acquisition of the literacy skills. Simmons (1972) estimates that one adult out of 50 reaches the third year level and that same adult has only a 70 per cent chance of achieving simple literacy. What this means in effect is that the Tunisian diglossic situation does not help the acquisition process of literacy because it does not provide enough reinforcing opportunities. This also means by the same token that it does not help the retention process because of the same failure. It is estimated that it takes literacy elements acquired in an average six-year-long primary schooling situation anything between five and ten years to disappear if they are not constantly reinforced by usage. The retention factor among adult education participants must be even shorter in Tunisia since, as Eches and Wald (1971b) and Kelly and Tropser (1970) show, literacy seems to be less important than professional or personal qualifications which, in most cases, can be attained without reading or writing abilities. Soon after leaving the literacy classes the newly literate adult learners regress into a semi-illiteracy state which again reflects diglossic features. The amount of MSA acquired and retained does not even allow them to read more than simple words and sentences. However, they can use the Arabic script and this is extremely important for them psychologically, since they can convey and receive written information in TA and keep the feeling of being literate. This phenomenon is attested in many instances of migrant workers correspondence and in a good number of the eighteenth and nineteenth century documents in the Tunisian Archives.

The functional shift towards the use of writing in TA is the result of a modernising movement in society in which the oral tradition of conveying and communicating information is slowly dying away. Writing is becoming more and more instrumental and Arabic writing, which had always been accorded until recently the same deferential treatment given to wheat and bread because it was *klām rabbi* 'God's words', is losing most of its sacrosanct nature. One can nowadays see Arabic newspapers used as wrapping paper in Tunisia, an event which would have been unheard of a few years ago. This is probably quite revealing of the important attitudinal change towards writing in this country. This does not, however, do much to eliminate the inherent difficulties which are encountered with both the *Arabic writing system* and the *Arabic script*[29] and which must, to a great extent, be responsible for the growing spread of semi-illiteracy in this country and in the Arab world in general.

Ounali (1970) reports that a high percentage of Tunisian college students prefer to read in French, if they have the choice, and Riahi (1970) shows that the same remark is valid at the high school level, where 8 per cent only of the students interviewed read an Arabic newspaper daily, while 73 per cent preferred to read a French one. If one wonders why Arabic reading seems to be so unpleasant and so uninviting one is bound to come upon what is, to my point of view, the most important idiosyncracy of the Arabic writing system, which is the VOCALISATION PROBLEM. This problem, which Mahmoud Taymour calls 'nothing less than a linguistic disintegration, which is destined to rob the languages of its essential native and primary characteristics'[30] is the failure of the Arabic writing system to systematically use the diacritical signs (or diacritics) which represent the vocalic structure of Arabic. Diacritics do not as a rule appear in printed material because the nature and construction of the founts do not allow a liberal use to be made of them. They are considered to be used almost solely for the benefit of the learner rather than for the teacher or the literate person. For that reason the school situation is the only place where they are consistently used and even then that use is limited to whatever length of time is considered sufficient for the learner to be initiated to reading without them. The adult education textbooks which we referred to earlier use completely vocalised texts until the very end (i.e. the second half of the second volume of *Sabīl al-Maᶜrifah*), where they are dropped to 'prepare' the students for the change to normal newspapers and books.

If, in the linguistic definition of the term, reading is the ability to relate sound patterns to letter patterns or, as Venezky[31] puts it, to 'translate' from written symbols (or spelling) to sound, whether the referential meaning is known or not, it seems that in the context of MSA the nature of the reading process is more complex and implies a higher awareness of the over-all semantic structure of the text. Without the vowel symbols which mark in MSA all the morphological patterns and most of the syntax, namely all the inflectional endings, the reading of MSA needs alertness and discrimination in order to resolve the great number of alternative possibilities. This slows the reader down and puts a heavy burden on the learner. He also needs a good knowledge of enough grammar to go through whatever is being read without consciously changing its semantic structure.

The MSA reading process depends to a large extent on the learner's acquired linguistic competence. The Arab reader does not have the innate linguistic competence which would enable him to implement the grammatical rules of MSA with the few additional rules needed for decoding what is printed and establishing the required correspondence between the phonological output of the grammar and the graphemic representation of the language. It is less difficult for the native speaker of a language like French or English to link the graphic representation to its semantic interpretation. Chomsky and Halle believe that 'orthography is a system designed for readers who know the language, who understand sentences and therefore know the surface structure of sentences.'[32]

This shows that in the case of MSA, which is nobody's native language, reading is going to suffer either from examples of inadequate and ineffective teaching of MSA grammar, or from inherent syntactical ambiguity, or from both.

A very common mistake among all MSA speakers is found in the conjugation of the verbal stem vowel, which is the vowel between the second and third consonants of the stem. In the perfect we find one vowel whereas a different vowel is found in the imperfect forms. It is the later which creates problems even when it has been clearly presented to the students. One is faced when reading MSA with cases of 'unncessary' structural ambiguity. If we look at what would be in the Arabic writing system the exact graphemic equivalent of the following form *K-T-B-T*, we find that we can give it not less than five semantic interpretations, namely:

(1) K – (a) – T – (a) – B – (∅) – T – (u) 'I wrote'
(2) K – (a) – T – (a) – B – (∅) – T – (a) 'You (Sg/Mas) wrote'
(3) K – (a) – T – (a) – B – (∅) – T – (i) 'you (Sg/Fem) wrote'
(4) K – (a) – T – (a) – B – (a) – T – (∅) 'She wrote'
(5) K – (u) – T – (i) – B – (a) – T – (∅) 'It (Sg/Fem) written'

One can of course get five more semantic interpretations from the same graphemic form if one takes into consideration the omission of intonation in the reduction of the phonological system to writing. The previous example becomes more complex when the word for 'letter' is added, since that word can occur with either /-a/ or /-u/ to give either 'I wrote the letter' or 'The letter was written.'

In order to decide which reading to choose the reader's eyes must scan a much longer graphic stretch and go through more grammar decoding. This does not always bring results and one can be left with an important residual structural ambiguity, which we find in sentences with subject-object confusion. If we take *ð̣-r-b l-w-l-d r-r-ž-l* for instance, we can read it as *ð̣araba l-walada r-ražulu* 'The man hit the boy' or *ð̣araba l-waladu r-ražula* 'The boy hit the man.' Being an inflectional language with a reduced word-order, MSA does not lend itself easily to a linear reading process. This process, for which the decoding of the grammatical structure is fundamental, is altogether a much more complicated reading process than the one needed in English for *The American history teacher is nice.*[33]

If a formal knowledge of MSA grammar is needed for reading, the contribution of TA at the level of the lexicon should not be neglected. The native speaker of TA uses his knowledge of the spoken and linguistically related TA forms to vocalise the graphic consonantal representation. What he needs is good eye-training and good guessing strategies.

To get a clear idea of the skills required for reading Arabic, the English speaker-reader should try to go through a fast reading of the following text:

> 'Tm, wh ws wrkng (a) lng wy frm hm, wntd t snd (a) lttr t hs wf, bt h cld nthr rd nr wrt, nd h hd t wrk ll dy, s h cld nly lk fr smbd t wrt hs lttr lt t nght. T lst h fnd th hs f (a) lttr-wrtr whs nm ws Bll.
>
> Bll ws lrdy n bd. "T s lt," h sd. "Wht d y wnt?" "(I) wnt y t wrt (a) lttr t m wf", sd Tm. Bll ws nt plsd. H thght fr (a) fw scnds nd thn sd, "Hs th lttr gt t g fr?"
>
> "Wht ds tht mttr?" nswrd Tm.
>
> "Wll, m wrtng s s strng tht nly (I) cn rd t, nd f (I) hv t trvl (a) lng wy to rd yr lttr t yr wf, t wll cst y (a) lt f mny."
>
> Tm wnt wy qckly.'[34]

More than a 'guessing disposition' is needed for this otherwise innocuous sentence:

> 'Bll rdrd thr blls fr hs sthrn bll's sstr nd pd th bll rght thr.'[35]

The internalised linguistic competence of the non-literate Tunisian is needed even at the lexical level. The TA native speaker has an innate recognition for what represents Arabic syllabic structure, consonantal clustering and phoneme combination. He also knows all the prosodic features and all the morphological patterns of TA and they are, if not identical, at least similar to those of MSA.

The late Faze Larudee of the American University in Cairo tried to use the dormant linguistic insights of Egyptian Arabic (= EA) native speakers in the diglossic MSA-EA speech community. He developed a new approach to initial reading which he called CREATIVE READING.

'Creative Reading' (= CR) is a word-centred method which tries to establish a linguistic association between a pictorial device and a sequence of symbols. The letter-sound correspondency is based on a one-to-one fit and the visual aids represent easy and familiar concepts. The internalised linguistic competence of the non-literate native speaker is triggered by the pictorial device and a sequential relationship is established between the phonemes and the graphemes. The result is the *phono-graphic interpretation*, which constitutes the reading process itself. CR is still at an experimental stage and more research is needed to verify the effectiveness of CR-based literacy primers and readers.

The vocalisation handicap is so serious in the case of the MSA reading process that the cues which exist in the Arabic writing system (e.g. the graphemic representation of vocalic length and the use of the *sukūn* for diphthongs. cf. Appendix B,) are not enough to counterbalance its negative effect. The Arabic alphabet also presents features which burden the acquisition of writing and can slow down reading. The plurality of letter shapes to represent the 28 graphemes of the Arabic alphabet (cf. Appendix B) and the maximum 24 consonantal phonemes of the Arabic language accounts for a basic matrix of 400 forms which has been estimated by some at as many as 600 forms or so. It hinders the development of Arabic printing and this has obvious repercussions on literacy. The proliferation of grapheme variants (cf. Appendix B) is a further burden on the learner. The close similarity which exists between those graphemes (22 out of 28, cf. Appendix B) which are identical in basic form but distinguished from one another by dot arrangements is yet another obstacle to the reading process.

In spite of all these difficulties, the Arabic writing system does not apparently constitute as great a problem for the learner of writing. A reform of the Arabic script becomes, as Nasri Khattar puts it, 'a weapon against illiteracy'[36] but this is when and *only when* it finds a solution which reintegrates the vowels into the Arabic writing system in a way esthetically acceptable to the majority of Arabs.

Conclusion

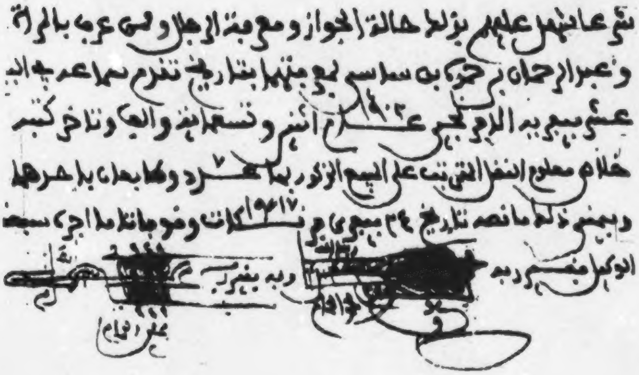
Literacy and *illiteracy* in Tunisia and the Arab World are part of an inseparable dialectic, where linguistically conditioned measures can only be taken if they are politically viable. The reform of the Arabic script, which improves the spread and easy retention of the literacy skills, cannot be thought of except in pan-Arab terms. The choice of the language of general education and adult education is a further political problem, which Tunisians and other Arabs have to take into serious consideration.

If MSA seems to be too remote from the daily preoccupations of the average Arab illiterate and if the vernacular does not seem adequate for the socio-educational role of literacy, then it is time for Arab linguists, educators and leaders to consider what steps should be taken to modernise their language. This can only be done through a more conciliatory attitude towards the vernaculars.

It is not enough to teach initial writing and reading to Arab illiterates in this diglossic situation, a process which is already very costly.[37] Urgent linguistic measures must be taken to ensure that literacy efforts are really productive. Only in this way can the Arabs concerned with literacy revive the spirit of the declaration of the UNESCO Regional Conference on the Planning and Organisation of Literacy Programmes in the Arab World (Alexandria, U.A.R., October 10–18, 1964):

> In making available to all Arabs the ability to read and write, the Arab World can only return to its original spirit, since it was the first to transform signs into symbols, symbols into letters and the alphabet into wisdom. In this way, the Arab World will regain after a long interval its great creative achievement.[38]

APPENDIX A



A sample of ᶜ*dūl's* Maghribi writing with the typical *Khanfūsa* (i.e. signature specific to each notary public).

APPENDIX B

The Arabic Alphabet

ا ب ت ث ج ح خ د ذ ر ز س ش ص ض
ط ظ ع غ ف ق ك ل م ن ه و ي

(Standard Alphabetical Order)

Examples of Grapheme Variants

جـ ـجـ ـج ـج ج
عـ ـعـ ـع ع

Dot Arrangement

بـ يـ نـ تـ ثـ - ح خ ج - ر ز
س ش - ع غ - ص ض - ط ظ - د ذ - ف ق

Possible HAMZAH Positions

قرآن - لؤلؤ - إكرام - تأليف - الإيمان
الأشياء - حينئذ - تساءل - يستهزئ

Graphemic Representation of Vocalic Length and Diphthongs

/(k)ī/	ـكيـ
/(k)ā/	ـكا
/(k)ū/	ـكو

and in some cases, the *'alīf maqṣūrah*:

/-wā/	ـوى
/-kaw/	ـكو
/-kay/	ـكي

Notes

[1] Arthur Gillette, *Les Jeunes et l'alphabétisation*, UNESCO/UNCESI Paris, 1973.

[2] *Rapport final de la Conférence de Téhéran* 8–19 Septembre 1965 UNESCO/ED/217, Paris, 1966.

[3] Egalité d'accès des femmes à l'alphabétisation, Etude comparée, UNESCO Publication, 31 Aug. 1970.

[4] This is a genuine example taken from the memories of the writer's wife when she was a child.

[5] Talking to the Prophet, God says: 'Read: In the name of the Lord . . . Read and thy Lord is the Most Bounteous, Who teacheth by the pen, Teacheth man that which he knew not'. Sūrah XCVI, 'The Clot', *The Meaning of the Glorious Koran*, translated by Muhammad M. Pickthall (Mentor books, New-York) p. 455.

[6] Lucien Paye: Enseignement et Société Musulmane – Introduction et évolution de l'enseignement moderne au Maroc, Vol. III p. 482, Note 2, Mimeo, Tunis.

[7] Cf. Maamouri (1973), p. 56.

[8] Nourreddine Sraieb (1974), p. 28.

[9] Cf. UNESCO (1972a), p. 121.

[10] Cf. Foster (1973), p. 3.

[11] Cf. Remiche (1968), p. 28.

[12] The UN Demographic Yearbook for 1960 shows that 40 per cent of the Tunisian population is under 14 years of age with a very high overall birthrate of 45 per thousand.

[13] *J.O.R.T.*, 2 July, 1963, pp. 925–26, Tunis.

[14] Cf. Foster (1973), pp. 4–6.

[15] *Plan Qadriennal 1965–68*, Publication du Sécrétariat d'Etat au Plan, Tunis 1965.

[16] 15 October celebrates the departure of the last French soldiers from Tunisian territory.

[17] Douglas E. Ashford (1967): 'Organisation of Cooperatives and the Structure of Power in Tunisia' in *Journal of Developing Areas*, Vol. 1, pp. 317–32.

[18] Cf. Douglas E. Ashford (1973): 'Succession and Social Change in Tunisia' in *International Journal of Middle East Studies*, Vol. IV, pp. 23–29.

[19] Quoted in Eches and Wald (1971b) pp. 44–45.

[20] Cf. definition of this special UNESCO term in the 1973 *Guide pratique*, pp. 47–50.

[21] UNESCO/ASFEC (1973) l'Alphabétisation Fonctionnelle composante d'un programme de planning familial, Rapport du Séminaire opérationnel régional de Nabeul, Tunisie (Septembre 4–24, 1972).

[22] Cf. Charles A. Ferguson's description in 'Diglossia', *Word* 15: 325–40, (1959).

[23] Cf. Charles A. Micaud's 'Bi-culturalism in North Africa: Some Socio-Political implications'.

[24] Cf. Foster (1973) p. 9.

[25] Cf. Foster (1973) p. 11.

[26] Cf. Remiche's account of her interview with Mr. Tahar GUIGA in Remiche (1968) pp. 43–4.

[27] Cf. Maamouri (1973).

[28] Paulo Freire's *l'Education: pratique de la liberté*, Editions du Cerf, Paris, 1971.

[29] A distinction is made here between the Arabic writing system which is the way the Arabic language is represented graphemically and the Arabic script (or alphabet) which is the set of letters which are used for that graphemic representation.

[30] Mahmoud Taymour (1951) 'A New Arabic Script to Facilitate the Use of the Diacritical Points Essential for Correct Speech and Writing', *The Islamic Review*, vol. 39, pp. 16–18.

[31] Richard L. Venezky (1967) 'English Orthography: Its Graphical Structure and its Relation to Sound', in *Reading Research Quarterly*. Vol. 2, pp. 75–105.

[32] Noam Chomsky and Morris Halle (1968) *The Sound Pattern of English*. p. 49.

[33] Ronald Wardhaugh (1968) 'Linguistic Insights into the Reading Process' in *Language Learning* Vol. 18, pp. 235–52.

[34] L. A. Hill (1965) *Intermediate Stories for Reproduction*, p. 1, O.U.P., London.

[35] In case this is needed the sentence reads: 'Bill ordered three balls for his southern belle's sister and paid the bill right there.'

[36] Nasri Khattar (1955) 'Unified Arabic: Weapon against Illiteracy' in *Al-Kulliyah*, Vol. 30, p. 10.

[37] Simmons (1972) estimates per capita cost of literacy at a minimum 2,070 U.S. dollars while it costs only $600 to educate school pupils up to the same level of competence.

[38] Cf. Remiche (1968), 16.

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Aspects of Literacy Teaching in the People's Republic of China*

Charles Ferguson

In trying to describe the literacy policies and practices in the People's Republic of China we must look at what the language situation is in the country, what alternative policies are possible given that situation, and then the policy decisions that have been made. Some of the issues that are involved come up again and again in other countries and are perhaps even universal issues of literacy policy decisions, and others are specifically Chinese in type with relatively little generalisability to other situations.

Let us look at what the language situation is in China. In the first place of course there is an enormous population, so when we talk about widespread literacy the size of the operation is going to be very much larger than in most countries. Also as with many countries in the world today, China is linguistically highly diverse. There are two different kinds of diversity. One concerns what are called minority languages in China. These are languages thought not to be Chinese in the narrow sense ('Han') although they may be called Chinese in the broadest sense in that they are spoken in China. It is of interest that the total number of speakers of such minority languages consists of only six or seven per cent of the total population, so even though the number of languages may be fairly large – in the order of fifty or so recognised languages – the size of the problem in China as a whole is quite small. Consequently a policy with regard to literacy in these minority languages might run its own course relatively independently of policies made for the rest of China, which might not be true in a country where the diversity of this particular kind was on a much larger scale.

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* This paper is a version of a recorded interview given to the editor by Dr. Ferguson some time after his return from the People's Republic of China as a member of the official group of American linguists who visited that country in 1975. The relatively informal style of the paper is a reflection of this circumstance.

The other kind of diversity in China concerns varieties of Chinese in different parts of the country which are so different that they are mutually unintelligible at first interaction between people, and are certainly as far apart from one another as varieties that are called separate languages in other parts of the world. But it is interesting that the Chinese never regard these as separate languages. There have never been strong traditional movements of political autonomy or linguistic autonomy or policies of recognising these as independent languages. Even though recognition may be given to various dialects for particular uses there has never been the kind of claim for language independence or linguistic autonomy that you might find in other parts of the world where there are similar differences in varieties of language used. However, it is only 30% or so of the population of China or rather speakers of Chinese in the narrow sense which speak varieties of Chinese which one might think of as being separate languages from the main bulk of 70% or so of Chinese speakers who speak some form of what might be called Northern Chinese or some other such cover term. So the picture then is of one major variety of Chinese, with internal variation to be sure, spoken by the overwhelming majority of the inhabitants of China. Seven or eight other major varieties or groups of varieties of Chinese which could almost be regarded as separate languages are spoken by the other 30%. It should be remembered that when we speak of 30% of the population we are speaking of many millions of people and a substantial area of China, including the most heavily populated South Eastern coastal areas of the country.

The size of the country and the pattern of linguistic diversity is the first aspect of the situation that has to be noted. The second is the extent to which there is a recognised national language, either in the past or now, by official policy or consensus. I think that there is no mistaking the fact that in general throughout Chinese history there has been a feeling that there is one national language. At some periods of the history this has been more clearly so than at others and sometimes it has been more explicitly stated as a policy, but generally this has been a recurrent feature of the Chinese language and (at the present time) there is an agreed on, explicit policy of having one particular variety of Chinese as the national language (the so-called common speech – Putonghua). This language has roughly the general grammatical characteristics of the North Chinese already mentioned, the pronunciation (apart from a few details) of educated Peking Chinese, and the vocabulary and certain features of expression characteristic of several approved modern authors. There is, then, a clearly agreed national language within some limits and there seems to be no particular dissent anywhere in China from that point of view. In fact, even the Nationalist Group in Taiwan in effect agree completely with this policy, even though the People's Republic of China calls the national language by one name and the Nationalist régime calls it by another. The fact is that it is the same language that is being talked about and there is no essential difference in this policy. It is, as I said, a policy which has a long history in China. The specification of the language was not always of the same kind, but there has been a tradition for more than 2,000 years of having one national language. That is an important second point.

Then the third, and perhaps most uniquely Chinese element in the situation is the kind of writing system that is in use in the country. The writing system is the product of a long distinguished history that goes back to scratchings on bones for auguries many, many centuries BC, and it has been the vehicle for bodies of literature at different periods in Chinese history down to the present time. There is, then, a long history of written language, and the writing system that developed through these long years is a very complex one which has only limited relationship to the actual pronunciation of the language. It is a system that combines the representation of morphemic elements with some indications of pronunciation; it has many thousands of separate characters and, what is more, has different traditions of writing these characters under different circumstances.

So there are three important points to make about the writing system: it is an ancient system deeply tied in with the Chinese cultural heritage; it has only a relatively slight relationship to pronunciation; and it is quite complex, with many characters and different ways of writing them.

In addition, we would have to mention the fact that there has been a tradition of having people read written language in the pronunciation of their own spoken variety of Chinese or in an approximation to it. This means that, at least for the small élite group through Chinese history who could read and write, it was not always necessary to learn to *speak* what was regarded as the standard national language. It was possible to use it in reading and writing and then to use a local pronunciation for oral purposes, such as reading aloud.

With that very sketchy statement of the language let us move on to consider alternative policies that would be possible for the spread of literacy in China. Assuming that there is a goal of universal literacy, (which I think has been for some time a goal of the Chinese leadership), there are a number of alternative ways of reaching that goal.

In the first place, as far as the minority languages are concerned, one alternative would be to have speakers of minority languages become literate only in the national language, and then to use the minority languages, if at all, only as an auxiliary device at the earliest stages of education, or something of the sort. Here a decision has been taken, and it is being implemented increasingly, although details of that implementation are hard to get. The decision has been taken to use the minority languages themselves as media of instruction and as the vehicles for newspapers and certain kinds of literature, depending on the size of the community using the language and other factors such as the historical use of the language. Something like fifty minority languages are recognised and used in varying degrees for such purposes. For the minority language speakers literacy comes first in the minority language, then, sooner or later, depending on the particular educational system, literacy in the national language is added. It is an interesting question in itself as to what kind of writing systems should be used for the minority language, how literacy instruction should take place, and so on; but let us put the minority language problem aside as being relatively separate from all the rest and look at the main part of the Chinese picture.

Let us assume that, for the teaching of literacy, for those people who speak a variety of what we are calling Northern Chinese, there are no unusual problems; that is to say that although the writing system is complex, and provides special problems of instruction, and so on, nevertheless the basic fact that the language being written is essentially the language that is spoken gives us a familiar kind of setting for literacy policy decisions, and it must be seen right away that there is no necessary bar to full-scale literacy of a population like this with a writing system like Chinese. We have only to look at Japan where there is close to 100% literacy for practical purposes and where the writing system is even more complex than the Chinese.

The problem that is of greatest interest, I would think, for the person who is generally concerned about the literacy problem is what happens with those speakers of local or regional dialects of Chinese which are markedly distinct from North Chinese. Here again there are several alternatives which would be possible. One line would be to say: let us have speakers of local dialects become literate first in their own local dialect or a regional dialect close to it, (for example a local variety of Cantonese) or a standard form of Cantonese. But with an alternative like that, literacy would first be achieved in the 'dialect' and then, in due course, literacy in the national language would be achieved, perhaps in connection with the teaching of the national language as such; so this would be a two-stage process, and certainly it is a familiar possibility which has been followed in some parts of China and is known in many other parts of the world. Another alternative would be to have people first acquire literacy in the national language: literacy would be acquired along with or somehow in relation to learning how to speak and understand the national language.

Another dimension of alternative, which cuts across these two, is whether the traditional script of Chinese should be used at all stages of this literacy teaching or whether some variety of script which more closely represents the sound system must be used. Either variety of writing could be used, either for literacy in the local dialect or for literacy in the national language, so this is a cross-cutting dimension.

Now that we have looked briefly at the situation and policy alternatives, let us see what policy decisions have been taken. The decisions in China are quite clear. Since the mid-1950s it has been decided that all education for Chinese speakers in the narrow sense is to be given through the medium of the national language. That is to say, first literacy will be acquired in the national language, and if this requires additional instruction in the language, then that too is part of the first kind of formal education that the child receives. Also, if an adult, illiterate speaker of a local dialect wishes to become literate, the pathway for him will be to become literate in the national language first.

The second question is whether to use a phonetic script or the Chinese script in the teaching of literacy, and here the policy decision has been made for the whole country that, in the earliest stages of the acquisition of literacy, a phonetic script in Roman letters (Pinyin) will be used. This sounds as though one takes Pinyin first and becomes literate in that, and later makes a shift to Chinese characters. That is a little misleading, because even from the very earliest days pictures of characters are on the walls, and teachers do write characters on the board, and so on, so that the system of characters is always in the background. It is a way of explaining the pronunciation of a character rather than of replacing it. But nevertheless, since Pinyin transcription is used at the early stages for everyone this means, of course, that it is used for people who do not speak the National standard variety of Chinese.

Now this policy of national language for all, and use of Pinyin, is sensationally successful, at least in so far as one can judge from what is happening in the schools. That is to say, the literacy rate in China is dramatically increasing.

In places where, even twenty-five years ago, there were few or no schools, there are now typically enough schools to take care of the whole school-age population. This is not universally true throughout China, but it is substantially true in the cities and increasingly so in the countryside.

The Chinese success raises a question: why does this policy seem to work under conditions where similar policies in other parts of the world do not seem to work? The answer is very complex, but at least one important part of the answer is the general attitude, however it has been achieved, toward the spread of the national language. Recognising that throughout China's history, there has always been emphasis on one variety of national language, the extent to which this ideal, or this goal is accepted throughout wide sectors of the population still is impressive. There may well be people who have reservations about the goal itself; there certainly must be reservations about the means of achieving the goal; but what is impressive is the widespread acceptance of such a goal even with young children and with elderly people who are not speakers of the national language themselves.

If we think of other countries in which there is a similar kind of diversity and a similar problem of literacy, even without the complications of the writing system, one of the attitudinal factors of importance is the question of the domination of a particular linguistic group, and feelings of resentment or hostility toward those people whose language is, as it were, being imposed upon speakers of other languages. Perhaps one of the interesting features of the language problem in China is the presence at the highest government levels of people who are obviously not native speakers of the national variety of Chinese, who speak it with an accent, and who are nevertheless recognised as sympathising completely with this goal. Another important factor is the way the notion of a national language goal has spread as a utilitarian notion rather than as a national requirement. That is, the national language is seen as a means of improving communication, of improving China as a whole, rather than as representing the natural language of the whole country, and along with this attitude, there is a clear acceptance on the part of policy-makers of the use of local varieties of Chinese in a wide variety of contexts apart from literacy acquisition, including daily conversations, limited use in classrooms, and so on.

Anyone trying to make generalisations about literacy policy based on Chinese experience would want to enquire about the relation of the timing of the spread of the national language and the spread of mass literacy. Again, one could imagine various alternative expectations, on the part of the policy-makers.

As nearly as I can see what the decisions have been, there is no clear-cut all-or-none answer to this question in the sense that there is no policy, for example, that everyone must first learn the national language before the script can be changed, or before mass literacy can be achieved. Nor is it the other way around, that there must first be mass literacy and then that people should learn to speak the national language satisfactorily. There seems to be a very pragmatic view of 'let us do both of these things at the same time' with, I think, the expectation that the change-over from the traditional Chinese characters to Pinyin or some other phonetically-based writing system can take place only if at least a substantial proportion of the population can handle the national language to a considerable extent. I think some statement like that would be agreed to by language policy-makers in China. But it is clear that implementation of the whole language and literacy policy will vary from one province to another and from one sub-population to another depending on all kinds of socio-linguistic variables, including local attitudes, historical traditions in various places. political factors, and so on. I would say that the Chinese language policy-makers seem to be quite aware of this kind of difference and are concerned about local decisions being made in accordance with local conditions as long as they fit with the general language policy which has been enunciated for the whole country.

Let us look finally at the question of the writing system itself and ways in which it might be desirable to improve or change the writing system in order to make mass literacy easier and more effective and perhaps to make other improvements in language use in the country. The existence of variant forms of characters has been recognised for many centuries as a problem in the use of Chinese writing, but in addition, in the last century, a number of people, Chinese and non-Chinese, raised the issue of devising a writing system which more nearly reflects pronunciation rather than one which is tied so completely to the lexical and grammatical structure of the language. And on these issues, once again, policy decisions have been made. At a very early point, Chairman Mao Tse Tung expressed his view that some kind of phoneticisation of the Chinese writing system was necessary and inevitable and the question has remained of the nature of such phoneticisation. I think subsequently a policy has been adopted, too, that this will be a Romanisation, that is a switch to Pinyin, possibly with some changes in diacritics or use of spaces.

There has been time for second thoughts about the difficulties of making such a change and perhaps even for questioning the original policy decision, but it is my feeling that the policy decision stands, and it is still intended that ultimately Romanisation is the path for Chinese, largely for the reasons that Chairman Mao originally mentioned. It is a rationalisation of the writing system which makes it easier to handle in many ways and it brings Chinese into line with most of the other writing systems of the world. I think that the decision still holds, but the time perspective for the goal to be achieved is surprisingly long-term. The Chinese seem to have settled on no target date by which it must be accomplished. Rather, they seem to be quite willing to move step-by-step as appropriate steps become possible and indicated by the conditions.

Adult Illiteracy in the United States*

Rose-Marie Weber

Americans by and large assume that people who hardly ever attended school or did not benefit from time spent there have lost their chance. Schools are for children or for adults who were successful students as children. If a person never learned to read with ease, there is no place for him to turn to. For a goodly number of citizens, however, the efforts of local and federal governments and innumerable volunteer agencies have belied this notion. Naturalisation courses in the 1920s, the Civilian Conservation Corps in the 1930s, and the Army in the 1940s, for instance, provided literacy instruction, along with local schools, unions, women's clubs, and church organisations. In the 1960s, at least ten major federal agencies were authorised by nearly thirty laws to teach reading to adults (Greenleigh Associates, 1968a), while more than 600 non-governmental agencies were engaged in adult basic education (Cortright & Brice, 1970). Still, many Americans do not know how to read at all, and even more find print obscure and unyielding. The fact remains that a comprehensive programme to eliminate illiteracy in the entire population, although it has been envisioned (Allen, 1970), has never been fully mobilised, either by the lettered or the unlettered themselves.

There is much in the way of experience, talent, and resources for an intensive effort to build on. But adult basic education has always been a marginal enterprise in the educational system, receiving truly serious attention from only a few educators and political leaders. It includes much in its history that must be avoided if an intensive effort is to succeed. This chapter describes various aspects of recent English literacy programmes for adults, concentrating

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* From: *Toward a Literate Society*: a report of the Committee on Reading of the National Academy of Education, edited by John B. Carroll and Jeanne S. Chall; copyright © 1975 by the National Academy of Education; used with permission of McGraw-Hill Book Company.

in large part on efforts initiated by the federal government. The shortcomings rather than the successes of these programmes are emphasised so that the difficulties inherent in the 'Right-to-Read' goal will not be underestimated. In particular, questions about the fundamental aims and academic effectiveness of the instruction are raised. The educational resources now at hand – research to guide practice, materials, teaching expertise, and testing – are then briefly reviewed in order to assess the means for undertaking the academic side of literacy programmes.

The Extent of Illiteracy

Illiteracy, defined narrowly by the Bureau of the Census as the inability to read and write in any language, is on the wane in the United States as the younger, more schooled generations replace the older ones. In the decade from 1959 to 1969, the incidence of illiteracy in this sense dropped from 2.2 per cent to 1.0 per cent (1.4 million) in the population aged fourteen years and older, although the size of this age group increased 18 per cent in this time. By 1969, then, 1 of every 100 Americans was illiterate – 1 of every 140 whites, but 1 of every 30 blacks. These tended to occur in the older age range; in the 14-to-24 range, in contrast, only 1 of 300 could not read and write (Bureau of the Census, 1971).

Illiteracy, defined more broadly as the inability to read or write on a level necessary to deal with everyday situations, is of course far more problematic to assess both for individuals and for the population as a whole. Any plan for attaining functional literacy, as skill commensurate with needs has come to be called, requires not only assessing the competence of individuals but also determining needs in a wide range of contexts. In describing the American population, functional literacy has usually been defined in terms of the number of school years completed. In most current discussions it has been set at five or eight years. It is assumed that persons who have completed eight years in school, for instance, would have the proficiency to confront most everyday reading tasks with ease and flexibility. By this criterion, about 13 per cent (14.3 million) of the adult population aged twenty-five years and over are functionally illiterate; this figure is roughly equal to the proportion of the people who have completed the eighth grade and stopped there. Men illiterates in this sense outnumber women, and again blacks outnumber whites relative to their proportion in the population (Bureau of the Census, 1972).

The difficulty of describing functional literacy in terms of educational attainment deserves some attention. It is obvious that students who complete a certain number of years in school do not necessarily achieve or maintain the grade level established by standardised tests. It is possible that many with fewer years may progress beyond their grade level independently or with a little help after they leave school, as Gray reported for a group who had completed only six years or more (1956). In fact, the Bureau of the Census (1971) estimates that 43 per cent of the people who have never gone to school at all have learned some degree of reading skill. But it may be more realistic to expect most adults with only a few years of schooling to lose their ability with time. In a study of urban residents, for example, only 7 per cent had failed to complete five years in school, but half failed to score at the fifth-grade level when tested in reading (Hilliard, 1963), a finding roughly replicated in a current nationwide study of adult basic education students (Kent, 1972a). The number of school years completed, then, does not predict specific levels of proficiency, since it fails to account in particular for reading failure in school and loss in later years. Nevertheless, it turns out to be the factor most directly related to reading performance as tested, for instance, in national samples (Harris and Associates, 1970; 1971), as well as in small groups.

The fundamental problem of determining the level of proficiency that would make for a functionally literate person in our society defies easy answers. Describing reading materials in terms of school grade levels is a troublesome practice, in part because texts are ranked with respect to the average reading abilities of children. Analyses of texts show, at any rate, that much of the print that flourishes in our daily lives – from instructions on paint cans, to newspaper editorials, to safety manuals – surpasses the vocabulary and grammatical complexity of the eighth-grade level, not to say the fifth. The Harris studies (1970; 1971) attempted to assess functional literacy by testing the abilities of Americans across the country to deal with written information in such materials as classified employment advertisements, telephone dialling instructions, and application forms. A conclusion of both studies is that at least 4 per cent of the adult population is functionally illiterate in that these people cannot cope satisfactorily with these sorts of materials. The studies do not suggest, however, the level or range of abilities that readers would need to succeed on such material. Other empirical research has attempted to assess functional literacy from just this approach in the narrow context of job performance. Project REALISTIC, for example, has undertaken analyses to determine the level of reading ability men need in order to use materials related to their jobs and the degree to which inadequate reading ability may interfere with doing a job well (Sticht, Caylor, Kern, & Fox, 1972).

The direction toward describing functional literacy in terms of making a living – *any* kind of living – is questioned by some as reflecting a limiting conception of people's needs and capacities. This position was recently expressed at the Third International Conference on Adult Education in 1972 in Tokyo, where the term 'functional literacy' was rejected by many participants as suggesting that the aim of literacy was to subordinate people to economic mechanisms rather than stressing their potential for active involvement in their society (UNESCO, 1973). Whatever one calls it, the difference between the reading competence that some Americans have and the higher competence that they would benefit from remains great enough to be a matter of social concern.

The Aims of Literacy Instruction

The general objective of providing adults in this wealthy and technologically complex nation with the opportunity to learn to read well is hardly questionable. The reasons behind this objective nonetheless require serious consideration, since they determine the content and administration of programmes, shape the interaction between teachers and learners, and raise promises of how lives may change.

For the most part, government agencies have stressed the importance of literacy skills for economic independence. This has been, of course, the main objective of projects authorised by such legislation as the Manpower Development and Training Act which have included reading instruction as only one aspect of training in vocational skills. It is also the dominant goal expressed in the legislation authorising the Adult Basic Education programme under the Office of Education (ABE-OE), by far the most extensive of the current federal efforts toward literacy education. The legislation specifies that basic education for adults is intended to help eliminate their inability to 'get or retain employment,' make them 'less likely to become dependent on others,' and improve 'their ability to benefit from occupational training' (Title III of P.L. 91–230, Amendments to the Adult Education Act, Sec. 303c).

The principal question here is whether or not literacy skills, in and of themselves, are significant in qualifying adults for wider employment opportunities. There is little to suggest that they do. Basic education students, even though their numbers are small in relation to the job market, can rarely attribute a new job to their new reading skills (Greenleigh Associates, 1968b; Patten & Clark, 1968). Even the most conservative forecasts of manpower needs can give them little hope, since the demand for unskilled labour is decreasing even faster than the proportion of the unskilled in the population. As Dentler and Warshauer (1965) have pointed out, the difference between having a high school diploma or not, never mind having eighth-grade reading proficiency, hardly improves the job opportunities for young adults.

As has been shown elsewhere in the world, education does not create economic prosperity, but rather follows on it (Blaug, 1966). In their study of over a hundred large American cities, Dentler and Warshauer (1965) found that the more prosperous cities had the lowest proportions of dropouts and illiterates. The poorer cities had the highest proportions of dropouts and illiterates and also the most ambitious programmes to keep youth in school and provide adult basic education, but the low economic opportunity in these cities determined job insecurity to a degree that the compensatory services could not overcome. Elsewhere in the world, the level of urbanisation and industrial development may not demand a literate labour force, and so the promise of economic benefit from literacy campaigns cannot be fulfilled. In the United States the promise cannot be fulfilled either, but rather because our occupational structure has little room for the merely literate.

It is worth noting that a good proportion of the semi-literates who have enrolled in the ABE-OE programmes do not share the concern for employability that the legislation expresses. Two-thirds of the students surveyed in ABE-OE programmes in 1967 gave self-improvement as their main reason for taking a reading course, the same proportion of a nationwide sample in 1972 who attended to 'improve their educational status' (Kent, 1972a).

Traditionally, adult educators' main objectives in organising literacy courses have been relatively modest: to help students fulfill their personal objectives toward self-improvement and cope with daily affairs. Old hands (e.g. Cass, n.d.) recommend bringing the learners' world into the classroom so that they, as new readers, will make greater sense of it. Providing enough instruction so that students may read the Bible on their own or overcome their shame in front of their children has brought satisfaction to teachers and students alike.

The articulation of broader educational objectives that would coincide with students' immediate objectives and would in turn build on them, however, has received little serious discussion in the field of literacy education in the United States. What little there is hardly constitutes an adequate basis for instructional practice. The literature, with few exceptions (e.g., O'Neil, 1970; Stanley, 1972; Crabtree, 1970), is silent on the implications of literacy for sharpening and extending memory, for making reasonable decisions, for distinguishing with precision the desirable from the undesirable, for seeing things from new slants, for discovering talents in oneself, for learning satisfying skills and enjoyable games, for reflecting on one's place in the world, and for undertaking enterprising and constructive change within and outside oneself. People do all these things without learning to read, and of course they can learn to read without taking any of them on. But the principles that would guide how and what a person should learn from basic education are restricted by and large to a concern for skills rather than for what a person can accomplish with them. They rest on a shallow image of the student, hardly taking into account that he or she is more than a worker who can learn to sound out words. An indication of this situation shows in the childishness and colourless content of materials designed for adults, to say nothing of the lingering use of materials designed for children in adult courses.

Of those educators who have pressed for humanistic objectives in elementary literacy education, the most provocative and currently influential is Paulo Freire (1970a, 1970b; for critical analysis, see Grabowski, 1972). Starting from the proposition that every educational practice implies a conception of people and their world, Freire presents his view that all people, even the unlettered, have the capacity for reflection and action by which they can transform reality. Drawing on his experience with illiterates in Latin America and an eclectic background of Western thought, he goes on to urge for a pedagogy directed toward 'conscientisation,' the process by which people reach an ever-deepening awareness of the social context that shapes their existence and of their own potential for changing it. Learning to read, in his view, is action in this direction.

Specific instruction in literacy begins with the word, which is generative in two senses. At the outset, a word such as *favela* (Portuguese for 'slum') serves as the basis for dialogue through which learners analyse and interpret the reality of the object; this is a first step in conscientisation. Then the generative word is analysed into syllables and serves as the basis for building new words and sentences out of the given letters, allowing the learners to achieve an awareness of their own creative potential and written words. Freire, in spite of the inadequacies, convolutions, and dead ends in his writings, has successfully called into question the training objectives that motivate literacy programmes by placing people at the centre of a cultural context in which making a living is more than holding a job.

Literacy Education Programmes

As part of the War on Poverty in the 1960s, the federal government initiated a range of programmes to meet the educational deficiencies of the poor and so complement its modest traditional commitment to military personnel, immigrants, and others. The most ambitious of these began with the Office of Economic Opportunity in 1964 and grew under the Office of Education with the enactment of the Adult Education Act of 1966 (P.L. 89–750, Title III) and subsequent amendments (P.L. 91–230, Title III). This act terminated in June 1973; the long-range future of the federal commitment to educational effort remains unclear.

The purpose of the Office of Education programme (ABE-OE) has been to offer adults aged sixteen years and over the opportunity to attain reading, writing, and arithmetic skills up to the eighth-grade level and, in the case that this has been achieved in a state, to complete a high school equivalency course. To meet this purpose, the legislation provided for teacher training, for a range of special research and demonstration projects, and for a National Advisory Council to advise on and review the effectiveness of the efforts. The states, which had to meet 10 per cent of the programme costs, had the responsibility for planning and implementing curricula, administrative services, teacher training and evaluation. This has been an earnest effort; it has succeeded in bringing a needed service to many aspiring individuals. As a truly serious, comprehensive effort, though, it falls far short of the goal to raise the reading proficiency of large numbers of Americans.

Reading the population

The most obvious shortcoming of the federal literacy programme is that it has failed to reach a large proportion of the population that it was intended to serve. The number of students enrolled annually increased from 38,000 in 1965 to more than 800,000 in 1973. Nevertheless, this is a truly disappointing proportion of a population on the order of 15 million. The same number – nearly a million – drop out of high school annually. In contrast, more than 30 million other adults are enrolled in all sorts of continuing education programmes throughout the nation. Clearly, the main limitation here has been insufficient interest, mobilisation, and funds, not only for organising programmes but also for sustaining them. The actual funding for ABE-OE has always fallen far short of the amount authorised by the legislation. For instance, $225 million had been authorised by amendments to the Adult Education Act for fiscal year 1973, but only $61.3 million was appropriated. Furthermore, when the eligibility for ABE-OE programmes was extended in 1970 to adults with less than a twelfth-grade education, the number of potential students more than doubled to over 40 million; funding did not.

Counting time

Another difficulty in literacy programmes is that they tend to be implemented for only short periods of time, while they aspire to long-term goals. They are usually not funded for longer than a year and do not establish a sense of continuity that is necessary for students to persevere. On the other hand, few programmes are set up for less than a year in order to meet immediate, short-term goals in a community.

One of the problems in working out a long-term curriculum toward a given level of performance is that it is hard to establish the optimal length and intensity of instruction for adults. There is some evidence that intensive courses are especially effective. During World War II the Army was successful in bringing men with minimal skills to fifth-grade competence within a few weeks of training under very special conditions (Houle *et al.*, 1947). In their review of sixteen literacy studies, Anderson and Niemi (1969) point out that students in some of the shorter courses progressed farther than others in longer courses.

The length of time that learners must invest in order to progress depends on many factors, of course, but the literature generally fails to identify what these factors may be. A current study of nationwide ABE-OE students reports an average of a half-grade achievement over a period of four months; although a quarter of the students gained more than a grade in this period, fully a third made no gain or regressed (Kent, 1972b). Anderson and Niemi (1969) report mean achievement scores from 1.0 to 2.6 for programmes ranging from 1 to 24 months. The lack of norms is reflected in the state requirements for completing ABE-OE programmes. In fiscal year 1968, New Jersey required 144 hours to complete the beginning level of instruction, while New York required 415 hours (National Centre for Educational Statistics, 1969). At any rate, it is clear that if an optimistic estimate for progress is two grade levels a year, short-term programmes are inadequate to bring a student from primary level to eighth-grade proficiency – or any other modest degree of skill that he or she might want.

Implementing the programmes

The academic record of many literacy programmes is not impressive. The lack of administrative coordination at federal, state, and local levels, frequently complained about, must have its effects on the learning situation. Critics such as Anderson and Niemi (1969) and Barnes (1965) have commented on administrators' enthusiasm for setting up programmes and filling classes, and also on their relatively mild concern for the quality of the curriculum, the excellence of teaching, or the need for critical assessment. Teaching materials too often reveal haste and carelessness in their preparation. On the other hand, there have been many steps taken to streamline administration and to upgrade instruction, most notably the teacher-training and demonstration projects sponsored by ABE-OE. With the growth of professional experience in the field, educators have become more ambitious and reflective.

Perhaps the most persistent weakness in literacy instructional programmes is that, after all, few have hardly departed in any significant way from the objectives and curricula of children's reading programmes. Establishing grade levels, measuring achievement, organising classes, following a certain set of analytic steps in sound-letter correspondences, using a modified alphabet, and so on are generally derived from elementary school practices with only superficial adaptations for adults. Instruction through special devices such as teaching machines, furthermore, is based on essentially the same content. The conception of learning to read as a set of cumulative drawn-out steps is supported by the state of thinking about children's acquisition. In consequence, the reports of reading programmes rarely suggest that the measured gains of hard-working students might be, after all, far below their potential abilities.

Serving the population

Low attendance and quitting are constant problems in adult literacy programmes. Teachers frequently complain about the students' apparent lack of motivation, their negative attitudes toward learning, and their failure to recognise the long-term value of literacy skills. Fully one-third of the ABE-OE enrollees from fiscal year 1968 through 1970 dropped out annually (Osso, 1971); the proportion dipped to one-quarter in 1971 (National Advisory Council on Adult Education, 1973). A substantial proportion of students who leave give reasons relating to jobs, but another large group state lack of interest – 13 per cent in 1971. Many of the students do not continue from one year to the next. Some, of course, graduate from the eighth-grade level – in the neighbourhood of 15 per cent in recent years (Osso, 1971). Even so, only about half of the students continue on to the next year.

It is clear that illiterates in America have rejected the institutionalised patterns of education in large numbers by not joining, by withdrawing, or by participating only half-heartedly. Educated people tend to assume that illiterates turn away because of failure in their studies. But for some, going back to school may reflect a failure in other nonbookish areas of life that they may have aspired to and that, by the way, may even be considered illegitimate by their teachers (cf. Labov & Robins, 1969). Once enrolled, adults may be unwilling to suffer through tiresome exercises or show deference to the instructor. In courses designed to be more 'relevant' to their own existence, they may face embarrassing ignorance of their life conditions and the suggestion of inferiority as well. They may further be struck by the inadequacy of literacy instruction to expand or redefine their social world so as to narrow the gap between their own lives and a better life. Haggstrom (1966), examining the obstacles to effective education for the poor, reports on the thirst for knowledge that grew when a religious or social movement communicated to the poor that their position in society warranted their own thought and action. Few contemporary students have been touched by such a movement.

Educational Resources in Adult Literacy

In the adult literacy programmes of recent years, women have outnumbered men, although in the population they exceed men in educational attainment through the eighth grade. A substantial proportion of students live in hospitals and correctional institutions – about 15 per cent of ABE-OE enrollees (Osso, 1971). Although they may be enrolled in elementary programmes, many literacy students have already spent a long time in schools, as shown by an extensive survey of courses designed only up to the eighth-grade level; more than half the students had already completed nine grades of schooling, and almost 15 per cent had completed high school (Kent, 1972a). Considerable attention and effort have been directed toward establishing a sound academic foundation on which to best serve these students. Toward this end researchers have tackled the demographic characteristics of students, the outcomes of programmes, and the factors that contribute to these outcomes (see Jahns, 1970). The practitioners in the field have further worked toward developing a range of materials and tests and documenting thought and experience on methods and teacher training. In the sections below some of these resources for instruction in adult literacy education are briefly reviewed.

Further information on these topics can be sought through the ERIC system, as document in *Research in Education*; through the Adult Education Clearinghouse, now located at the ABE-OE-sponsored National Multimedia Centre for Adult Basic Education at Montclair State College in New Jersey; in the professional journals *Adult Education* and *Adult Leadership*; and in guides to the field such as Cortright and De Crow (1970), ERIC Clearinghouse on Adult Education (1970), and Griffith and Hayes (1970).

Research on adults' learning to read

With the recent increase in literacy programmes there has been a concomitant increase in the amount and quality of research efforts. To a certain degree, however, the definition of what constitutes research in adult education is still 'exceedingly liberal,' as Brunner and his colleagues remarked almost 17 years ago (1959, p. 6). Furthermore, interest in the perceptual and cognitive aspects of the reading process in adult learners has not been great, falling as it does between more general research on adult learning (e.g., Botwinick, 1967), which suggests few implications for learning to read, and theories on learning to read conceived with respect to children (reviewed by Williams, 1973).

The generalisations on adult learning that might guide instructional practice, for instance, include the finding that the time needed to perform certain tasks increases with age but that the level of performance does not change significantly through adulthood. This is supported by observations of adult learners, which is after all probably as reliable a source of information on the special characteristics of the undereducated as any laboratory studies. With respect to learning style, for example, Brazziel (1969) has remarked on the craftsman's concept of deliberate care that many adults bring to the learning task. The reluctance to take risks, often observed in reading classes, shows up on achievement test performances, where adults omit items that they are not sure of rather than guess, the way high school students do (Karlsen, 1970).

The assumption that adults learn to read the same way as children has hardly been questioned. In fact, a serious effort to validate a specific skills approach for teaching adults to read is being undertaken with test data provided by children (Askov, Otto, & Fischbach, 1971). The handbooks on adult education exhort teachers not to treat their students as children, but out of respect for the student rather than for other pedagogic reasons. If adults, by virtue of their cognitive maturity, do have abilities that lead them to a particular strategy, they have not been examined in detail.

One relevant aspect of adults' abilities, their linguistic competence, can serve as an example here. Because this competence is more elaborate than children's, we might expect adults to deal with the writing system differently from children. Documented evidence on the way adults approach learning to read an unfamiliar alphabet, however, comes from an experiment with subjects already literate in English (Bishop, 1964); many of the observations on new literates dealing with print focus on a small aspect of the writing system such as tone-markings (Gudschinsky, 1959). Yet there is reason to believe that English-speaking adults' more elaborate vocabulary would affect how they learn the correspondences between sounds and print. Even a non-literary vocabulary may allow readers to capitalise immediately on the underlying patterning in our spelling system that is obscured by matching individual letters. Thus they may handle sound differences but identical spelling patterns exemplified in 'race'/'racial' or 'industry'/'industrial' as easily as first graders handle 'pin'/'pine'. On another level of language, adults' more mature knowledge of the grammatical workings of the language and greater experience with a variety of types of discourse (e.g., narratives, descriptions, arguments) may give them an advantage in dealing with the way a written passage will unfold. As speakers of non-standard English, they may not be so flexible as children in learning the bookish variety of English, but they may well benefit from explicit instruction on its differences from their speech. These sorts of questions – how sound-spelling correspondences are learned, the significance of underlying regularity in the writing system, the divergence between speech and written language, and the effects of explicit instruction on the relationship between spoken and written language – have been brought up and explored with respect to children, but they scarcely enter any discussion of the adult illiterate.

Materials and methods

Well over a dozen annotated bibliographies on materials on adult literacy have been compiled in the last ten years; they reveal a moderate range of choice for adult educators (e.g. Ford & Nicholson, 1969; Nazzaro, 1971; Rancier & Brooke, 1970). A variety of handbooks (e.g., Otto & Ford, 1967; Cass, n.d.) as well as curriculum guides (e.g. Greer, 1966; Hollis, 1966) provide a good deal of information and counsel for teachers and administrators. The library profession maintains its traditional concern for the special needs of the undereducated adult (e.g. Stoffle, 1969; Casey, 1972). All in all, there is a substantial body of literature documenting the pedagogic efforts in adult education.

The teaching materials that are available include a range of approaches. For the most part, however, they are silent on the theory of reading acquisition which they rest on. The rationale for a particular approach or even a short exercise is stated, if at all, in objectives that are questionable and often remote; the principles that guide sequences or pacing are rarely made explicit. Some adult materials cover a span of development, while others cover just a small facet of instruction such as introductory phonics. As with children's materials, there are some that emphasise sound-spelling relationships from the outset and others that emphasise whole word recognition. Some stress comprehension by including tests in the materials rather than leaving it to be informally gauged by the instructor. Special practical skills for adults, such as writing letters and map reading, are often introduced early. Programmed materials allowing for various degrees of self-pacing are available, including several series with rather elaborate hardware. Instruction by television has been developed as well. In contrast, some adult educators propose to avoid prepared materials and urge that the subject matter come from the learners' environment or be written by the students themselves.

As might be expected, there is no clear evidence that any one set of materials is more effective than another in developing and refining reading skills in adults. Greenleigh Associates' (1966) study, for instance, showed no significant differences among four programmes and only pointed up the usual difficulties of controlling all the variables as well as interpreting the effects of specific instructional procedures on gross achievement scores. Proposals in the literature regarding the suitability of materials for adults, the need for flexibility in format, and the inadequacy of materials for developing word analysis skills tend to be based on weaknesses that have been observed in programmes rather than on their successes. One of the strongest convictions that comes across is that instruction should be through full sentences that make sense to adults. Another is that it should be individualised but yet buoyed by some group interaction. All in all, there are no clear directives for foolproof reading instruction for adults, either at the very beginning stages or later.

With respect to the context of learning, the formal classroom setting seems to have fostered fewer happy effects than other settings. In classrooms it is easy to maintain the unequal power relations between teacher and learner that nurture the stereotype of the adult literacy student as low in self-esteem, reluctant to take risks, and concerned either to use English correctly or not at all. In an effort to individualise instruction and to move away from fixed schedules, administrators have turned to programmed materials, allowing for greater privacy and self-pacing. In fiscal year 1970, half of the students in ABE-OE studied from them (Osso, 1971). Some programmes have established so-called learning centres, where students can consult instructors and work through a range of different types of instructional aids at their own speed. The use of rather complex technology with adult learners, however, draws mixed results, not the least a lingering fear by some students that they will break the machines. Other programmes have arranged for students to work at home and consult with tutors by telephone or by appointment. These efforts have given good results in some quarters. For instance, one centre reports that achievement gains among adults studying at learning centres or at home are more than double those shown by those who attended traditionally structured classes (Scholes *et al.*, 1972). Support, of course, is critical. The poor results of a TV course when shown at home as compared to when shown in class was attributable to the failure of home viewers to watch it (Anderson & Niemi, 1969).

Two suggestions for improving instruction that come up time and time again are to relate the objectives of adult literacy instruction to occupational and personal needs (e.g. Harman, 1970) and to design the instruction to fulfill larger social objectives. The full implications for instruction have not been followed through, at least on any large scale, except with respect to occupational needs. The experience with training programmes has shown that in well-planned courses, when the demand for reading grows from the need to work out tasks and sharpen skills, achievement steadily increases (Gregory, 1970).

Teacher preparation

Next to financing, finding qualified personnel has been the most pressing problem faced by administrators of literacy programmes. Ten years ago there was only a handful of persons professionally devoted to teaching adults. At that time courses dealing with adult literacy in education schools were practically nonexistent. Only a few states had special requirements for teaching adults, and these were rather lax. Most of the teachers in adult literacy classes, therefore, were moonlighting elementary or secondary school teachers, retired teachers, or people who had had no training at all in education.

The Adult Education Act of 1966 recognised the inadequacy of professional expertise for broad-scale programmes by incorporating authorisation for teacher-training programmes. These have been set up for the most part as two- to four-week summer institutes for teachers and administrators who in turn are qualified to conduct pre-service and in-service programmes at the state and local levels. In this way, 24,000 of the staff totalling 29,300 in fiscal year 1968 received something in the way of preparation (National Center for Educational Statistics, 1969). The Job Corps hired relatively inexperienced teachers and trained them especially for its largely self-instructional individualised programme. It provided pre-service and in-service courses as well as consultants on request, thus giving support and guidance that few teachers of adult reading have had (La Plante, 1969).

In spite of the expansion of career opportunities in adult basic education in recent years, fewer than a hundred institutions offer courses in the topic; graduate programmes, which tend to serve those who already have practical experience, are rare. The professional qualifications that a teacher might bring to adult classes, such as understanding the reading process or skill in managing a class, tend to be less valued in handbooks for teachers than the ability to get along well with students, to recognise their dignity as human beings, and to provide positive support for their awkward attempts to become fluent readers. In their evaluation of basic literacy programmes, Greenleigh Associates (1966) concluded, although on rather weak grounds, that high school graduates were more effective than more highly educated teachers. Some programmes have adopted the strategy of having recently advanced students teach their peers, trying to capitalise on the empathy among new learners.

Tests

Part of going to school is taking tests. Because students in adult basic education who have been away from school for a long time find paper and pencil tests particularly harsh, programmes tend to rely on informal checks for placement and for assessing progress.

In the area of formal testing, instruments to measure the skills and progress of children are still widely used – a clearly questionable procedure. Several tests have been developed specifically for use with adults (Rosen, 1971). These have various technical flaws with respect to reliability, validity, and norms, and limitations with respect to content and range. Careful research on adult reading norms has yet to be done, but from it may come a cleaner picture of adults' development into fluent readers.

Concluding Remarks

The recent efforts toward providing adults with the opportunity to read better have resulted in a growth of expertise and knowledge on which to continue. But it is clear that adult basic education has continuously begged for recognition and support beyond rhetoric; the people it is meant to serve hold it in low esteem. For those who take up the opportunity to advance in book learning, the commitment requires patience, an integration of personal resources, and a strong belief in its value. As it stands in our society, the value of literacy education does not suffice to offset the arduousness of the learning task. The task itself has hardly been defined independently of the tradition in elementary education for children. Movement toward a literate society requires shifts in thinking about both the value of literacy and the way to achieve it.

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A Different Approach to the Teaching of Reading to Illiterate Adults: An Example from Thailand

David Harman

Efforts to teach illiterate adults reading and writing skills go back several hundred years. The first recorded programmes were linked with the expansion of Protestantism in Europe and, indeed, the missionary motif has prevailed to this day, although its primacy as a motivator of adult literacy programmes has been supplanted by twentieth century themes of nationalism, development and mass participation. It was only after World War I that the notion of a concerted, national campaign to eradicate adult illiteracy was conceived and following World War II that it was internationally adopted as a necessary educational strategy.[1] Most countries, whether in the developing or developed worlds, have subsequently initiated adult literacy programmes and these have become common, if not high priority, elements in national education systems.

Adult literacy programmes, in the main, employ instructional techniques essentially identical to those used in the teaching of reading to children. Although Gray has noted that most adult reading programmes are methodologically based on the global or analytic approach (Gray, 1969, p. 165), the widely prevalent 'Laubach Method' is inherently sound-syllabic or synthetic (Laubach, 1947). Adult programmes differ from those intended for children primarily in the definition of reading readiness. Whereas in childrens' reading programmes readiness usually refers to the acquisition of certain skills and competancies considered necessary for the initiation of formal reading (e.g. word discrimination, listening comprehension, motor coordination, etc.), in the case of illiterate adults attention is focussed on motivational factors cohering to create a desire to read. Unlike the factors which combine to make a child 'ready to read', motivational elements of adult programmes consist of developing cognisance of the potential uses and significance of reading skills. It is generally assumed – albeit without supporting evidence – that cognitive and motor conditions favourable for the onset of formal reading instruction exist among adult populations. A major thrust in adult literacy work over the past decade has been in the direction of functionalising literacy programmes, i.e. combining reading skill development with substance of functional relevance to learners.[2]

The record of achievement of adult literacy programmes has been discouraging. Typically plagued by excessive dropout rates ranging from fifty to eighty per cent, programmes have generally met with little success in imparting lasting reading skills even to those who eventually graduate (Harman, 1974, Chap. 7). Research findings consistently indicate that lack of interest, boredom, feelings of inadequacy resulting from poor accomplishment, inability to participate on a regular basis and difficulties in mastery of literacy skills are major causes of attrition, while lack of availability of written materials, inability to read those materials that are available and lack of either need or motivation to read cause a majority of those who have become literate to lose their literacy skills through disuse (Kaufman and Bazany, 1970; Bazany, Kaufman and Safavi, 1970; Bazany, 1973; Simmons and Allman, 1969; Simmons, 1970; Roy and Kapoor, 1975; Grabelsky, 1970). Based on these findings it is possible to make some assertions regarding the cause-effect relationship that pertains between instructional approaches and methodologies on one hand and programme failure on the other.

The reasons given by programme leavers for their dropping out appear to implicate several aspects of literacy instruction:

(1) Although efforts are usually made to develop motivations of adults to acquire reading skills they are evidently insufficient to sustain attendance: initial enthusiasm rapidly tapers off to disenchantment.

(2) Efforts to functionalise substance are constrained by the elementary levels of reading capabilities of programme participants such that little, if anything, of actual relevance is perceived to have been gained.

(3) Adults long separated from formal schooling and certainly those who had never experienced it find difficulty in application, as well as tedium, in extended, systematic instruction.

(4) Irregular attendance patterns resulting from a host of time conflicts with other, more immediately urgent responsibilities, often create difficult to bridge gaps in systematic learning sequences.

(5) Due to elementary reading levels acquired through literacy programme, particularly in their early phases, the primer remains the major – and very often the only – written material learners can read. In a very real sense this makes the newly acquired skill dysfunctional and mitigates against those motives responsible for initial attendance.

(6) Further compromising participation motives is the remoteness that repetition of lists of nonsense syllables or simplistic sentences bears to normative daily living concerns.

(7) Often seeking rapid gratification and short term rewards for efforts expended adults might well feel discouraged by the slow pace of advance and lose sight of whatever delayed returns might accrue.

(8) Since most adult literacy programmes are conducted in formal instructional settings wherein traditional teacher-student relationships pertain, participants are cast in an unfamiliar and often undesirable role, possibly engendering feelings of 'being treated like children'.

(9) In non-literate societies literacy has little, if any, normative value. When coupled with the difficulties in the acquisition of reading it stands to reason that people would begin questioning its basic validity.

Taken together, these factors imply that it is not merely the method employed in teaching of reading skills that is at fault but rather that instructional approaches, far more broadly defined, require innovation. Alteration of reading instruction methods alone would not, it is posited, significantly improve the situation described. The entire learning environment is in need of clarification and redesign. Such an undertaking would redefine functionality and relevance as aspects of adult literacy courses, examine and establish different classroom dynamics and take a longer view of the issues of motivation in addition, of course, to attempting a fresh look at methods of reading instruction.

A New Approach to the Teaching of Reading to Illiterate Adults[3]

In searching for a new and viable approach to adult literacy education a new approach has developed over the past nine years which, by now, has been experimentally introduced in several countries. Rather than attempt a different method to the teaching of actual reading skills, this approach is premised on the notion that meaningful reading instruction is contingent upon a series of factors which cohere to create appropriate conditions for reading or a reading environment. Additionally, this approach predicates that adults, and particularly adults with little or no prior school experience, have learning characteristics that cannot be met through traditional instructional technologies, most of which primarily address learning needs of children. In this section the approach and its derivation will be described and in the following section the rationale underlying its various components will be presented.

Basic to adult literacy efforts, it is contended, is the motivation of prospective participants to acquire reading skills. However, while the development of such motivation may be sufficient to cause initial participation it need be constantly regenerated to effect continued attendance. Motivation, then, can be viewed as consisting of two separate but contiguous phases: initial motivation and sustained motivation. The role of the first phase is to stimulate the first contact – willingness to attend and experiment with a literacy course. It is then that the role of the second phase begins – inputs which operate to sustain motivation and which are manifest in durability of attendance. The notion that once an adult enrolls in a programme the motivational aspects of an effort are concluded is, in this approach, considered erroneous. The second phase, indeed, is considered of far greater importance for it must relate more directly to the advantages of reading than the first which could – and in many cases does – depend on other inputs (e.g. social value in congregation, entertainment value of programme participation, etc.). Moreover, while initial motivation relies upon variations of persuasion, continuing motivation derives from the programme itself – its substance and method.

Related to motivation are the notions of functionality and relevance. Adults, whose attendance in courses is normally voluntary, will attend and continue to participate only if, in their perceptions, benefits accrue to them. On the assumption that such accrual could not be delayed for too long, lest participants get bogged down in routine instruction and lose sight of the end objectives, it was premised that short term objectives be delineated. Since in non-literate societies one's life concerns and experiences are closely linked with occupation and family conditions (this also virtually being the case among illiterate adults in literate cultures), it was further premised that programme substance be relevant to these concerns. Such relevance could be attained by posing objectives that would functionally relate substance to basic concerns, enabling participants to usefully apply what they might learn through attendance to aspects of their lives of immediate importance. Since different groups have different concerns and interests, a decision was made not to develop materials universally applicable, but rather that a programme content would have to be specifically determined for each different participatory group and based on themes generated from each potential group. Inevitably there would be some measure of overlap between groups but each programme would be, in a sense, custom tailored to suit a particular population, culture and area. This premise is essentially one of situation specificity.

An additional premise underlying the approach posits that illiterate adults – and in particular those in non-literate societies – find difficulty with abstractions inherent in the process of reading. To reduce this difficulty an attempt was made to relate written texts to familiar concrete situations not only through the content of the text but in a more pronounced fashion through relation to a pictorial representation with which identification could easily be engendered. Use of pictures (or photographs) was also considered methodologically sound as it enables relating the process of decoding in reading to a similar process inherent in the scanning of pictures.

Further, it was premised that the approach towards the entire learning experience would be inductive rather than deductive, i.e. that rather than have participants work through the course and its diverse parts in order to attain a posed end objective, each session would have an objective of its own, with the sum of all sessions providing a set of benefits including reading as well as the other programme aims. Within individual sessions, however, the obverse would pertain and deduction would be employed rather than induction.

Finally, it was considered inappropriate for adults to be subjected to a frontal learning situation in which they would face a lecturing teacher and a blackboard. To the extent possible organisation of the learning situation would attempt to parallel the manner in which adults normally convene and learn – group discussion.

The approach which evolved from these premises operates as follows:

Participants receive upon their arrival at a programme's first session an empty binder and only those sheets (or cards) necessary for the lesson being taught. Upon completion of the lesson the sheets are inserted into the binder and in each succeeding meeting new, additional pages are handed out and added to the binder. In this manner rather than work their way through a book or primer (a deductive approach) as is traditionally the case, participants would be creating a book of their own as the pages begin accumulating.

Each lesson is depicted on one or two sheets. On one side there is a photograph or picture showing a scene or activity with which participants are familiar. On the obverse of the sheet is a text which relates to the pictures. From the outset of instruction these texts are complete and carry meaning, notwithstanding the fact that participants are unable to read them.

The session begins revolving around a group discussion of the picture. Participants are asked to describe and discuss what they see in the picture – essentially a process of decoding. The role of the instructor is to serve as discussion leader, keeping the discussion going through interposition of leading questions or observations, drawing conversation in the direction of the session's substantive objective. The text is introduced into the session by the instructor as a summation of the discussion. Then one or two words which appear prominetely in the topic under discussion and are identified as key words are taught phonetically. Writing activities are also introduced at this juncture.

The key to his approach lies in the choice of topics which form the content of each session. These should optimally reflect themes generated from the participants through prior research.[4] This can effectively be achieved through using the same approach. Pictures are shown to small groups of people representative of prospective learners. Photographs taken in the area in which these people live have been found to be most effective. Should a photograph elicit discussion it can be assumed that it represents a generative theme. Moreover discussions very often get carried into different tangents as one event or object reminds people of others. Often such tangents bear little or no relation to the picture which acts merely as a stimulus or catalyst. If the same photograph has a similar effect on several groups of discussants it can be assumed to reflect a generative theme. Similarly if the subjects of the discussion tangents in different groups coincide repeatedly it can be assumed that a common concern or interest has been identified. Those pictures which illicit only paltry responses, or none at all should not be included in the final curriculum for, clearly, they do not project a 'generative theme'.

The text relates to the photograph, and hence to the topic under consideration, by introducing information which is functionally related to it so that participants actually learn something that is of relevance to a real concern.

Each session is treated as a whole sequence and participants are intended to depart feeling that something new and beneficial to them has been gained.

An actual sequence from a programme conducted in the north of Thailand might illustrate use of this approach. In pre-programme research rice growing was found to be a significant generative theme. In one session two photographs of a rice paddy were shown to participants; one in which rice had been randomly planted and one in which it had been neatly planted in rows. Participants, all of whom were rice farmers, were quick to see the differences and happy to discuss them. The text accompanying the session exhorts planting rice in rows with spaces of approximately 25 cm. between stalks since this method of planting – a simple innovation – significantly increases yields. Many words can be used as key words and the topic also lends itself to the introduction of the notion of measurement.[5]

Clearly, the texts introduced early in the programme cannot be read by participants. If the material, however, is of interest the substance will be retained – often verbatim. The picture also plays an important role in aiding recall for looking at it, participants usually form an association with the session at which it was discussed and remember the content of the text. Over time, as all letters of the alphabet are introduced through the key words participants are enabled to actually read the texts. They are aided in the acquisition of reading skills by the process of viewing pictures and extracting meaning from them for this effort differs only in kind from the decoding skills required for reading. It becomes relatively easy, conceptually, to transfer the decoding process from one medium (pictures) to another (printed messages).

Each session is viewed as a self-contained unit and the various units are not constructed sequentially. Because of this participants who are absent from one or several sessions – an inevitability in adult programmes – need not drop out because they have difficulty in bridging gaps created. In terms of reading instruction lack of sequence is dealt with by choosing key words such that all letters, sounds and combinations are phonetically taught several times during the course of a programme. If a participant was not present during one rendition he will be able to learn whatever he missed on another occasion. Lack of sequence also enables instructors to choose material for any particular session on the basis of participant demand or perceptions regarding participant interests at a specific time.

It is not necessary to prepare a complete set of curricular materials for each different area of a country. The separate sheet format enables curriculum developers to compile sets of materials, inserting new sheets as needed and discarding only those sheets which are not appropriate to any particular given situation. Over time, as a programme expands to a wider area a library of these sheets accumulates and a set of materials can be pieced together on the basis of early target population research for each new area to which the programme is to be extended.

Literacy *per se* is not, clearly, the main focus of this approach but is treated as a by-product. This is intentionally the case for it is premised that reading is bound to content and content, in turn, interlocks with context, experience and environment. To the extent that these linkages can be made clear through such a programme it is expected that reading skills will develop, ultimately become a part of cultural environments, and be consistently utilised. Drop-out would be greatly reduced and retention of acquired literacy skills enhanced.

Rationale Underlying the Approach

In the absence of a systematic body of research pertaining to adult learning, and particularly to adults in non-literate societies, it has been necessary to rely upon secondary material and inferences from other research in order to derive the theoretical base and rationale for the approach described.

First, in this regard, are a long list of anthropological and sociological investigations which characterise low socio-economic groups – non-literate communities in particular – as relatively closed systems wherein life and thought revolves around daily concerns of subsistence, traditional cultural practices and family (however defined). Franz Boas' assertion in his classic study *The Mind of Primitive Man* that 'the existence of a mind absolutely independent of conditions of life is unthinkable' (Boas, 1911, p. 133), has been amply substantiated in subsequent inquiry. Thus, for example, Claude Lévi-Strauss suggests that primitive thought differs from advanced thought in that classification systems in the former are intertwined with concrete environment and experience whereas in the latter they are formed on the basis of various abstract notions (Lévi-Strauss, 1966). Although Shmuel Eisenstadt's contention that the characterisation of undeveloped societies as being static and unrelentingly opposed to change appears exaggerated (Eisenstadt, 1974) is convincing, the researches of Daniel Lerner and Alex Inkeles, among others, into the correlates of individual modernity clearly implicate factors such as traditional kinship systems, lack of exposure to media, depressed economic status and narrow base of personal contacts in the formation of closed, context bound, social systems. Richard Hoggart, studying reading interests of the English working-class, concluded that 'they have had little or no training in the handling of ideas and analysis . . . (they) will stick to the tradition of the group; and that is a personal and local tradition', (Hoggart, 1957, p. 102).

There are several implications from these observations pertinent to the instructional process. First, concerns, motivations and interests are inexorably intertwined with immediate environment, thus indicating the realm that should serve as the context base for educational programmes. Second, and related to the first, is the notion of context bound as opposed to context free thought patterns. This point underscores the need to base content on local experience as well as use it for derivation of motivation. It also raises a question regarding the appropriateness of reading written material as an activity for illiterate adults in non-literate societies, for written material is necessarily independent of context and much more abstract than oral speech (Malinowsky, 1930). 'Context-dependent speech' points out Patricia Greenfield 'is tied up with context dependent thought, which in turn is the opposite of abstract thought' (Greenfield, 1968, p. 4).

It can be assumed, then, that the illiterate first being confronted with a printed text faces a major cognitive hurdle: he is not being merely required to come to grips with a new skill, but also forced to cognitively relate to this skill in a manner which his entire prior life experience has not prepared him for.

Two aspects of the approach described have evolved from this reasoning. Relation of programme substance to immediate and known experience is one, and the use of pictures is another. Pictures or photographs[6] are context dependent; they do not describe a situation, they actually show it. Scanning pictures and searching them for meaning from the point of view of thought processes can be a concrete operation. Association of a written text with the picture, it was premised, would ease learners over the cognitive constraint during the initial phases of instruction. Over time, as the nexus between printed matter and concrete situations would become clarified in the minds of participants it would be possible to dispense with the pictorial representations.[7] In a sense, one might consider this aspect of the approach as the development of a 'literacy consciousness', this being a cognitive prerequisite to the development of reading skills.

The pictorial representations also serve an additional purpose. Reading has been defined as a process of encoding and decoding of written or printed symbols from and into sounds that have meaning (Fries, 1962; Chall, 1967). Similarly, it is suggested, the understanding and extraction of meaning from pictures, implies a decoding process. Essentially, through analysis of photographs learners experience and develop – within a concrete, context linked context – procedures similar to those subsequently required for reading. The teaching of reading then becomes an exercise in transferring decoding abilities from one medium to another.

Inherent in this approach is a stage development notion of reading in which two processes occur simultaneously. The first process entails development of thought patterns from concrete to abstract, from context dependent to context independent. The second process consists of developing decoding skills, initially within a concrete context dependent medium and ultimately applied to independently presented written messages.

The photographs and texts are printed on separate sheets which are given to participants one at a time for insertion into a looseleaf binder. This aspect of the approach differs from the traditional primer based programme. Primers, used more widely than any other form of material in literacy programmes (Gray, 1969), usually take the form of a booklet, or series of booklets, averaging fifty pages in length. Sequentially organised primers typically contain heavily illustrated simple and short texts in the early lessons and gradually progress towards more complex, lengthier texts with fewer illustrations. This format, it has been hypothesised, could well be a contributing factor to the creation of feelings of inadequacy which have been implicated as a source of dropout. Participants experiencing difficulty with the first few lessons leafing through the primer and seeing the increasingly complex tasks looming ahead might become discouraged and decide to discontinue participation rather than undergo what appears to them to be a tortuous path.[8] Provision of separate sheets creates the opposite impression in the mind of learners – rather than looking forward in despair they can only look backward at the accumulation of that which has been achieved. This, it is premised, might operate as an encouragement factor, possibly increasing motivation to sustain attendance. Emphasis of participant attention is shifted from the learning difficulties yet to be experienced to the amounts of material that have been successfully traversed.

The bounded binder technique has two additional purposes. First, it enables curriculum developers to present learners only with material with which they would be familiar, in keeping with the premise stated earlier. Photographs and texts that are appropriate for one group of learners residing in one area, but present subject matter foreign to another group can be withdrawn and replaced by alternative material with relative ease without requiring new printings of complete primers. Only those sheets considered unsuitable need be replaced, while others can remain in the curriculum intact. In this fashion the separate sheets – looseleaf technique allows for a large measure of flexibility in the transfer of a programme to diverse areas and populations within a country. Adherence to the notion of 'situation specificity' – of custom designing substance of programme for specific groups of participants in different situations – becomes technically feasible without necessitating excessive expenditure for printing of material.

Second, the separate sheets allow instructors flexibility in the determination of sequence. Not being bound to a predetermined sequence by a primer they can present subject matter in that order which appears to them appropriate to the needs and desires of participants.[9] Clearly, the possibility of determining the content of lessons on an *ad hoc* basis can become an important means of sustaining interest of learners as well as a mechanism for provision of substance considered, at a particular session, to be of timely significance.[10]

The lack of predetermined programme sequence raises an immediate question regarding the feasibility of teaching reading in any but a strictly sequential fashion as is commonly the case. Actual reading in the approach being described is taught through a series of key words. Within each text only one or several words are taught in a traditional, phonetic fashion. Other words in a text are not taught, nor should participants be expected to be able to read them. Only after a sufficient number of key words representing all letters and corresponding sounds have been introduced should instructors tackle entire texts. Clearly, this is a gradual process; the more letters participants are familiar with the larger the portion of each text they will be able to decipher. Key words should be selected such that letters and letter combinations be introduced several times throughout a course so that participants who had difficulty or were absent during the first round might be enabled to have second and third chances. Those who did learn a particular set of letters during the initial instruction would not find the repetition boring because the substance of the lesson would always be new.

Texts, even though learners might not be able to read, might be retained through different mechanisms. One might ask, as does George Haslerud (1972), what the value of teaching content is when people lack the basic skill required for its retrieval. Indeed, most literacy programmes are premised on the notion that acquisition of reading skills is an absolute prerequisite for any receipt of information through printed materials. The currently described approach assumes that the substance of the texts, and quite likely the texts in their verbatim entirety, would be retained by illiterate adult learners because of their association with accompanying pictures on the one hand and highly developed memorisation capabilities on the other hand.

Although there is some disagreement as to whether the process of learning is incremental or occurs in an 'all-or-none' fashion (Estes, 1960; Jones, 1962) there is general acceptance of its definition being the creation of connections and associations between events. Within the approach described the events are the picture and the text, the pictures serving as stimuli. Although some research (Rock, 1957; Rock and Heimer, 1959) indicates that associations can be formed in one trial, implying that presenting text and picture in association once would suffice, the extended discussion of the pictures coupled with repeated readings of the texts serve as more than adequate repetition for facilitation of learning in the event that a single presentation is insufficient. To the extent that the pictures succeed in arousing interest and learners feel that what is being learned through discussion and text is of significance, conditions for retention are improved. This, of course, places the onus of successful learning on proper choice of generative themes. Moreover 'success followed by strong external reward will have the effect of increasing the likelihood of the same kind of performance another time' (Bruner, 1966, pp. 207–209). One key, then, to the retention of materials is based on choice of subject matter and the formation of associations between the pictures and texts through the catalytic media of discussion and repeated verbal renditions of the written matter.

The second key reposes in memorisation ability. It has been observed by many anthropologists that in illiterate societies the entire content of social traditions and culture is retained in people's memories (Goody and Watt, 1968). It has also been observed that the art of oral narration which is dependent upon memory, erodes with the introduction of reading skills (Lord, 1960). It is likely that memory serves the illiterate person in a manner similar to that in which a finely developed sense of touch serves a blind person – as a compensatory mechanism. Unable to utilise writing as a means for storage of information and lore, the illiterate is forced to rely upon memory; indeed to preserve an entire cultural heritage by memorising it. Even though it seems clear that long-term memory is a reconstructing process and thus not identical to immediate recall which is perseverative (Haslerud, 1972, p. 29), this distinction would probably not pertain in the case at hand since the general subject matter is anchored in the cultural tradition by derivation through generative themes, and also due to the greater reliance of the illiterate upon memory for perseverative as well as reconstructive purposes, eradicating to some extent the differences between the two. The pictures serve as mnemonic devices by creating linkages between the text and local culture on the one hand and the text and generative themes on the other. While one would be satisfied with general recall of subject matter and topics taught, it is often found that illiterates retain messages verbatim, reflecting the degree to which memories have been conditioned to serve as storage mechanisms. Indeed, entire cultures have been preserved through verbatim transfer from one generation to the next.[11] Rudolf Arnheim has stated that 'every pictorial analogue performs the task of reasoning by fusing sensory appearance and generic concepts into one unified cognitive statement' (Arnheim, 1971, p. 148). The currently described approach assumes that when picture and text are presented and taught in concert an association between the two will have been forged such that until such a time when the text can be read independently of the picture, the later will serve to facilitate recall.

Upon introduction, the pictures are discussed by the participating group with the instructor serving as a discussion leader. The focus of discussion is the picture; what participants see and understand from it, what associations it conjures. The new material pertaining to the event or events portrayed in the picture is contained in the text and introduced in a discussive manner by the instructor. Thus introduced the text is not a summative statement or addendum to the discussion but is digested through discourse, as an integral part of the proceedings.

The rationale underlying this instructional strategy emanates from several observations. Adults attending literacy programmes have had little, if any, prior experience with formalised frontal instruction situations. That format is one associated with the education of children (in areas in which schools exist) and likely to be rejected by adults as demeaning and inappropriate to their status in society.[12] Moreover, protracted presentation by teachers with minimal student participation requires a certain form of attention span which, due to lack of experience with the format, adult learners most likely have not developed.[13] Frontal instruction, most often manifest in developing countries in teacher recitation (Bennett, 1970), is usually also a deviation from normative communication patterns to which adults in illiterate communities are accustomed. Interpersonal communication among peers tends to be the most common form of transfer of knowledge and ideas extant. It has also been noted that peer communication is more effective than communication between non-peers or through mass communication media in the nexus of diffusion of new ideas

(Rogers and Shoemaker, 1971, Ch. 6).[14] Andreas Fuglesang observes that 'communication must imply a dialogue, in which the communication initiative can come just as well from one of the parties in the process as from the other. This cannot come about unless there is equality in the communication system' (Fugelsang, 1973, p. 24).

Two factors of significance to the discussion aspect of the instructional approach emerge. First, communication within a peer group – normally conducted through informal discussion – is an indigenous form of interaction and conduct of interpersonal relationships. Discussion by peers is also the foremost and indigenous mechanism for spreading ideas and knowledge. Second, the peer group members share, as a common denominator, a similar and possibly identical weltanschauung which, in turn, facilitates communication. Thus, it is not solely the mode of communication that is stressed in the instructional approach, but also the points of reference – the pictorially presented generative themes – which cohere into a method which utilises indigenous social interaction systems for purposes of transfer of new knowledge, skills, attitudes and behaviours. 'The social world . . . is a culture area, the boundaries of which are set neither by territory nor formal group membership, but by the limits of effective communication', states Tamotsu Shibutani (1962, p. 136). An attempt is made to penetrate the non-literate adult's 'social world' through the proposed approach without causing major discontinuities either with regard to substance or instructional method. Rather, just as the picture of a familiar situation enables the subtle introduction of new substantive material, so the teacher, by behaving essentially as a member of the peer group through assumption of normative communication patterns can more effectively serve as the conduit of the substance. To the extent possible the approach relies upon peer group learning rather than formal frontal instruction which is considered, in the context of adult illiterates, to be dysfunctional.

The actual instruction of reading occurs, it has been seen, as a subsidiary activity and the focus of the effort is placed on substantive material. This does not mean that literacy as a skill has been relegated to a secondary position. It does, however, underscore the contention that literacy and context are so intertwined as to be inseparable, particularly in regard to efforts at inculcation of literacy to illiterate adults. Jack Goody and Ian Watt point out that 'the literate individual has in practice so large a field of personal selection from the total cultural repertoire that the odds are strongly against his experiencing the cultural tradition as any sort of patterned whole' (Goody and Watt (b), 1968, p. 57), whereas in non-literate societies the entire culture is known and experienced. Anchoring literacy training within known cultural contexts, both thematically and instructionally, might serve to reduce the cultural discontinuities inherent in the transformation of nonliterate societies to literate ones, at least during the initial phase when rejection is such an obvious response of participants. Rather than violate the cultural wholeness, an effort is made to graduate the introduction of literacy such that it might be absorbed into cultural tradition and ultimately become a part of it while, of course, at the same time, contribute significantly to its alteration. The essential difference between this approach and others utilised in adult literacy work, then, is not to be seen in the emphasis on reading and writing *per se*, but rather in the strategies employed in eradication of illiteracy. Literacy is considered here as being a major cultural innovation, not merely a new communication skill. Consequently, it is also suggested that the introduction of literacy need be associated with the introduction of other innovations (through the content of programme), first in order to gain acceptance, and second in order to indicate to participants its potential benefits. Surely, it will remain an unnecessary skill if applied only to existing cultural environments which have flourished effectively over generations without being literate. From the vantage point of educational strategy the notion of a literacy programme which attempts only to teach reading and writing skills is negated and an alternative approach in which literacy instruction accompanies attempts to diffuse other changes is proposed. From the vantage point of instructional strategy the present approach is premised upon utilisation of extant, indigenous education and socialisation patterns, negating contentions that there are universally 'correct' instructional methods that need bear little or no relationship to the character and environment of participating adults.

Implementation

Thus far the approach described, or slight variations of it, has been implemented on trial bases in several countries.[15] In only one (Thailand) has a preliminary evaluation been completed.[16] Looking at a series of experimental classes where the approach was utilised with another group of classes in different villages using a conventional (sound syllabic) method serving as a control it was found that:

(a) dropout in the experimental classes was 12.6% as opposed to 31% in the control groups (over 180 contact hours);

(b) a 6.5 grade reading level was the average attained by participants in the experimental classes as opposed to a grade 4.0 average level attained by participants in the control groups;

(c) an average grade equivalency of 6.0 in arithmetic skills was achieved by learners in the experimental groups versus a 3.5 grade level average for those participating in the conventional programme;

(d) significant attitude change was identified among experimental class participants in 18 out of 22 substantive notions (pertaining to agriculture, health nutrition and family planning) examined whereas no attitude modifications were observed among participants in the control groups.

Another aspect of the study entailed asking teachers using the new approach their impressions. It was found that they experienced difficulties in adapting to discussion leader roles and blamed the discussion technique for not being able to 'go through' all the material they had available. As a result, during succeeding phases of experimentation with the method, more emphasis was devoted to the training of teachers. Based on the adage that teachers are more influenced in their teaching careers by the methods that were employed in their own instruction than by methods they were taught to use,[17] a teacher-training programme was designed using an approach identical to the one prospective teachers were expected to utilise in adult classes. Additionally a series of in-service meetings were organised for the purpose of enabling teachers to discuss questions, difficulties and experiences encountered while teaching. Those sessions are also utilised for solicitation of teacher inputs to the creation of new or additional materials.[18]

Unfortunately, while the evaluation study indicates that the approach taken as a whole works well in application, evidence is not provided regarding the different elements of the approach or any of the premises underlying its development. The most significant findings of the study were those pertaining to the teachers for they indicated directions for improvement. As a result of these findings it became evident that effective implementation of the approach requires viewing teachers as a distinct target group for which a separate curriculum should be devised. Clearly, properly trained teachers are a key to application of the approach, however valid the other contentions and premises upon which it is predicated might appear. Two separate curricula, each utilising the same approach, are indicated – one for programme participants and the other for programme instructors. In the former generative themes are derived from the general environment while in the latter they pertain to teaching and the instructional environment.

In Conclusion

In the absence of additional data and studies into questions of adult learning and specific characteristics of illiterate adult learners in particular, approaches to instruction such as the one described in these pages will have to rely upon studies conducted for different purposes, secondary material, inference and experience. The present description and analysis are an attempt to derive an instructional approach from a rather varied set of premises. The exercise, in turn, was motivated by a threefold set of factors.

First, it is an effort to indicate that adult reading instruction programmes have suffered failure largely in consequence of poorly conceived instructional mechanisms and not through any fault inherent in illiterate adults. Second, it is an attempt to show that effective education must mesh with the environments, cultures and experiences of participating groups and cannot be viewed as an independent and objective activity. Third, it is an attempt to argue that literacy inculcation cannot be equated with the instruction of other skills but rather should be considered, like modernisation, as a gradual process the development of which is nourished by achieving absorption into cultural patterns and acceptance as a beneficial and then necessary personal possession in symbiosis with cultural norms rather than in cultural clash.

Notes

[1] The first national literacy campaign was launched in 1919 in the Soviet Union. After World War II many of the newly independent countries initiated literacy drives and the general strategy was early adopted by UNESCO as an important educational strategy for development. For a more detailed description see: Harman, David, *Community Fundamental Education*, Lexington: Lexington Books, D. C. Heath & Company, 1974, pp. 47–57.

[2] Much has been written on 'functional literacy', a term formally adopted by UNESCO at a 1965 'World Conference of Ministers of Education on the Eradication of Illiteracy' held in Teheran. See *Final Report* of the Conference, Teheran, 1965. For a detailed description of the development of the term see Harman, *ibid.*, Ch. 2.

[3] Initial work on the reported approach was begun by the author in Israel (1967–8) in the Israel Ministry of Education's literacy campaign. The approach was further elaborated in the Functional Literacy for Family Life Planning Project sponsored by the Thailand Ministry of Education's Division of Adult Education and World Education of New York in Thailand (1970). Additional work was conducted by the author at Harvard University (1971) and in the Apperceptive Interaction Method Project undertaken by World Education persuant to a grant from the U.S. Office of Education (1973).

[4] The notion of 'generative themes' emanates from the work of Paulo Freire. He describes the way in which these themes are arrived at in his book *La Educacion como Practica de la Libertdad*. Santiago de Chile: ICIPA, 1969 and gives his philosophical rationale in *Pedagogy of the Oppressed*, New York: Herder and Herder, 1970.

[5] Most literacy programmes also attempt to teach arithmetic, viewing their role as being responsible for teaching the three 'R's'.

[6] All work in developing this approach undertaken by me made use of photographs. Freire used drawings in the development of his work in Brazil and Chile. Another effort drawing on this work and conducted in Turkey also made use of drawings rather than photographs.

[7] Although pictures and photographs appear straightforward, some research exists which indicates that there are differences in the way in which different cultural groups understand them. Some groups, for example, have difficulty in seeing the depth dimension on a two-dimensional picture. See Andreas Fugelsang, *Communication with Illiterates: A Pilot Study of the Problem of Social Communication in Developing Countries*, Lusaka: Zambia: The National Food and Nutrition Commission, 1959.

[8] There is no empirical evidence available to support this contention. It is based on personal observation as well as discussions with many adult literacy teachers in Israel, the United States, Thailand, India and Kenya.

[9] This aspect of the method has caused some difficulty to its users. First, teachers are, on the whole, poorly qualified and prove not to be adept at identifying sequence on their own. Second, some administrative problems arise resulting from the need to supply material in separate packages and store it for future use. While the latter problem is technical and relatively easy to

surmount, the former is more complex. To some extent it has been found possible to ease it through the provision of additional training to teachers – both pre- and in-services. As a substitute to teacher determination of sequence it is also possible to relegate this task to supervisors who also have direct contact and familiarity with participants, albeit less than do the immediate instructors, but certainly far more than do curriculum developers and material writers in a remote capital city.

[10] In practice it has been found that on occasion participants select those lessons they consider to be of particular importance and hang them on a wall at home for permanent reference.

[11] It has been argued that verbatim transfer in illiterate cultures is aided by various mnemonic devices such as rhythm, music and atmosphere. This might have relevance and implications for writing styles employed in composition of texts as well as group structure and dynamics.

[12] This factor is accentuated in many programmes by the fact that classes are conducted in school buildings – usually primary schools – where participants are forced to make use of sealed down furniture intended for children and are otherwise surrounded by essentially a child's world (pictures, decorations, etc.).

[13] This is an observation made to me by numerous literacy teachers but is, as yet, unsubstantiated by empirical evidence. There is some evidence indicating that, subjected to similar conditions, adults are slower to learn than children or adolescents. See Melcish, John, *The Science of Behavior*, London: Barrie and Rockliff, 1963, Ch. 9.

[14] Rogers and Shoemaker cite numerous studies in support of this contention and indicate only a small percentage of researchers that conclude contrariwise. See appendix A, pp. 376–377 (Rogers and Shoemaker, 1971). The studies cited are all concerned with homophilous versus heterophilousinterpersonal diffusion of innovations in attempts to identify appropriate communications mechanisms.

[15] Thailand, Israel, Turkey, Philippines, Malaysia, Ethiopia, United States.

[16] The evaluation study reported was conducted by Prodipto, Roy and Kamol Sudprasaert in 1971. It is available in mimeograph form in reports to World Education, New York and Division of Adult Education, Ministry of Education, Thailand.

[17] I have been unable to locate empirical evidence to substantiate this point and it is based entirely upon discussions with teachers and principals both in the formal school system and various adult programmes, as well as my own experience both as a teacher and supervisor of teachers.

[18] Although further systematic evaluation in this particular programme has not been conducted, supervisors and programme administrators impressionalistically report that the difficulties encountered during the pilot phase have, to a large degree, been corrected. In regard to the comment relative to the amount of available material it was not found possible to extent the 180 hour course duration due to various budgetary constraints. In order to avoid situations wherein teachers would curtail discussion to enable 'completion' of all materials, the amount was reduced.

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Literacy in the Mother Tongue: a Reappraisal of Research and Practice

T. P. Gorman

I

In 1950, the General Conference of UNESCO at its fifth session recommended that the medium of instruction, which it termed 'a recurrent problem in Fundamental education' should be made a subject for study on a world-wide scale. In 1951 a conference of specialists under UNESCO sponsorship discussed the problem and subsequently a report on the use of vernacular languages in education was issued which discussed general principles and made specific proposals relating to the selection of languages for use in initial and adult education, with emphasis upon the former (UNESCO, 1953a). The report was and is influential among educators and it remains a point of reference for those concerned with this issue. It seems appropriate, therefore, to begin this commentary with a reconsideration of certain of the more significant observations and recommendations of the report insofar as these relate directly and indirectly to adult literacy in the light of relevant developments in the study of linguistics and related fields over the past twenty-five years. These developments, both in the fields of theoretical and applied linguistics, have been far-reaching; and it is no reflection on the scholarship or achievement of the members of the 1951 group or on the validity of many of their conclusions to say that several of the arguments they advanced and the conclusions they reached are now open to question and reconsideration.

In this connection there are three basic points to be made. One is that the report naturally reflects in its arguments some of the ideas about the nature of language and language learning that were prevalent at the time it was written, and these need to be examined in the light of subsequent advances in the field. Correspondingly, the report omits reference to certain topics that a current account would find it necessary to deal with. Thirdly, in its composition the report reflects the inevitable difficulties as well as the advantages that arise from the attempt to reconcile the points of view of scholars from different countries and with different types of experience. One consequence of this is that certain important recommendations lack clarity and lend themselves to different interpretations so that the authority of the report has subsequently been cited in support of widely divergent policies.

This lack of clarity can perhaps best be illustrated by consideration of the definition of the report of the term 'mother tongue' which in the context of this discussion is a term of central significance. The mother tongue is said to be the language in which a person 'first learns to formulate and express ideas about himself,' but it is not necessarily 'the language he first learns to speak.' It is 'the language acquired in early years' but it is not necessarily 'the language his parents use.' It 'normally' but not necessarily becomes his 'natural instrument of thought' and 'normally' but not always is 'his natural instrument of communication.' The term as defined is so liable to misinterpretation that in this respect its use tends to hinder rather than to further effective discussion of the question of the selection of languages of instruction.[1] The same point has been made with regard to the use and definition of the term 'vernacular language' in the 1951 report. (cf. UNESCO, 1974).

I said above that the work of the 1951 Conference reflects ideas about language that were current at the time the report was written. This comment needs to be qualified. In certain respects the definition and use of the term 'mother tongue' as, for example, the 'natural instrument of thought' reflects prevalent ideas of an older tradition, philosophical rather than linguistic, which arose primarily from the work of such European philosophers as Herder and Fichte in the late eighteenth and nineteenth centuries. These scholars were concerned with the functions of language as an expression of national group identity and integrity at a time that a number of European nations were establishing themselves as independent powers. In the twentieth century this tradition found particular expression in such work as that of the influential linguist Dietrich Westermann who maintained the thesis that 'mental life has evolved with each people in an individual shape and proper mode of expression; in this sense we speak of the soul of a people, and the most immediate, the most adequate exponent of the soul of a people is its language.' He contended further that 'by taking away a people's language we cripple or destroy its soul and kill its mental individuality.' With regard to educational activity in Africa these theories led him to the conclusion that 'any educational work which does not take into consideration the inseparable unity between African language and African thinking is based on false principles and must lead to the alienation of the individual from his own self, his past, his traditions, and his people.'[2] I have elsewhere discussed at length some of the practical implications of these views which were extremely influential in 'Anglophone' Africa and in areas administered by Belgium during the colonial period (Gorman, 1971). The influence of assertions such as these and of this para-philosophical tradition in general is, moreover, still to be found in current commentaries on the question of the use of first languages in literacy teaching (cf. Anson, 1974 Appendix III).

It is hardly necessary to say that such assumptions cannot be regarded as providing an adequate theoretical basis for contemporary action. There is nothing in the science of linguistics that qualifies its practitioners to speak with any authority on such abstract notions as are here envisaged; and their continued use in discussions relating to language use in education has tended to obscure rather than illuminate the points at issue.[3] Because this is the case, and because the terms 'mother tongue' and 'vernacular language' are variously interpreted – and therefore have limited utility in a technical discussion – I propose not to use either term in this commentary except when referring to or quoting from discussions in which these have been previously employed. When it appears to be necessary, I will use the following terms: *first language* or languages: the language or languages an individual first learns to speak (recognising that in some situations the person may learn two or more languages at the same time); *primary language* or languages: the language(s) that a person characteristically uses in particular domains of language use, e.g. a person may characteristically use one language for work purposes and another for purposes of religious activity. A language may therefore be primary for some functions and secondary for others.

Where further distinctions need to be made as between local, national, trans-national and international languages these will be defined at the time they are used.

Apart from the influence of this older tradition a number of the observations in the 1951 report evidently reflect assumptions derived from theories prevailing in linguistic inquiry at the time. One such theory was the so-called 'Linguistic Relativity Hypothesis' elaborated primarily by the American Linguist Benjamin Lee Whorf who had argued that in certain respects language could be said to influence thought or ways of thinking and to determine how we interpreted our environment in certain fundamental ways. More significantly, there was a general tendency in linguistic theory in the 1940s and 50s to lay stress on the unique characteristics of different languages in reaction to an earlier tradition which tended to stress common or 'universal' features. Interpreted broadly, such ideas and assumptions might be thought to underlie such questionable statements in the report as the assertion that 'ideas which have been formulated in one language are so difficult to express through the modes of another that a person habitually faced with the task can readily lose his facility to express himself', or the statement that 'if an adult does not first learn to read in his mother tongue he may never become truly literate!'

The reaction of most contemporary linguists to these assertions would tend to be that insofar as they are understandable they must be regarded as statements of opinion rather than statements of fact, primarily because they are not supported by a coherent body of research. Developments in theoretical linguistics since the late 1950s have led to an increased awareness of features that languages have in common in terms of underlying semantic structure. Developments in psycholinguistics also serve to indicate that assumptions regarding the supposed relationship of language and 'thought' as are implied in the Whorf hypothesis and in the statement of the Committee quoted above are, to say the least, over-simplified. Advances in sociolinguistics are in particular in the study of languages in multilingual societies have provided insights into language use not previously available. It is now recognised, for example, that in many multilingual societies monolingualism and monoculturalism are the exception rather than the norm among urban populations or among male adults in the labour force in general, and such factors are clearly relevant to literacy planning in the areas concerned. As developments in this last field are of particular relevance to the topic under discussion they are discussed at greater length in the fourth section of this paper. The point I wish to draw attention to here is that the recommendations of the 1951 report need to be reconsidered in the light of current assumptions about the nature of language and language use.

II

The basic recommendation of the report of the 1951 group with regard to adult literacy work was that 'in teaching adults to read it is always best for them to begin in the mother tongue'. This is a statement that has been asserted in one form or another in many subsequent documents. While such an assertion appears to be commonsensical, it has to be admitted that the research evidence available to support it is limited. The 1951 report did not attempt to detail the research base from which the conclusion was derived as it was taken to be 'axiomatic' or self-evident. There is, in fact, very little comparative data available with regard to adult reading that would enable unqualified conclusions to be drawn as to whether, for example, adults in particular circumstances are likely to learn to read more quickly and more fluently in their first language as opposed to a language learnt later in life; and given the number of variables that could affect the process of learning this is only to be expected. There are, however, sufficient examples of cases in which participants in literacy programmes have learnt to read effectively in a second language to indicate that the axiom of the 1951 report cannot be accepted without qualification. An example of such a case was referred to by Charles Ferguson in his survey of patterns of adult literacy acquisition in Ethiopia (Ferguson, 1971). He pointed out that 'Generally in Ethiopian literacy acquisition there is no explicit recognition of the difference between mother-tongue literacy and literacy in another language, apart from Eritrea and some scattered mission programmes. Before passing judgment, however, the specialist might well investigate the importance of such factors as the strength of motivation for literacy acquisition, religious values associated with literacy, and the special status of the national language. In the only experiment related to this question which has been reported from Ethiopia the non-Amharic speakers made somewhat better progress in literacy acquisition than the Amharic speakers using the same materials (cf. Brooks, 1966)'. A greater amount of comparative research is available with regard to the teaching of reading to children, although the questions at issue are not identical with those that have to be taken account of in the teaching of adults. Patricia Engle, for example, recently undertook a comprehensive review of studies relating to two particular questions, namely: 'will a child learn to read more rapidly in a second language if he is first taught to read in his primary language; and will the child who is first taught a subject matter in his first language be more knowledgeable about that subject matter in a second language than if he were taught the same material only in that second language?' (Engle, 1973). She concluded that 'the twenty-four studies or reports summarised varied in every conceivable way, and most provided no substantial evidence as to which approach is better.'

It would not be appropriate to attempt to review the research studies relevant to the topic at this juncture – the more significant of these are listed in the Bibliography and I will confine myself here to stating general conclusions on the issue. In view of the number of well-documented instances in which groups of children and adults have been educated in the medium of the second language without apparent detriment to their linguistic or academic attainment, it is likely that the majority of scholars concerned with the issue would now be inclined to agree that the medium of instruction is not necessarily the primary variable in determining educational progress (cf. Bowen, 1975). With regard to reading there would also be general agreement that learners should not be asked to read material that they would not readily understand if spoken. This is the main reason that instruction in the first language of the learner has pedagogical advantages (in circumstances in which the written and spoken varieties of the language constitute broadly similar codes). On the other hand, learners can effectively learn to read languages other than their first language if they are given sufficient prior experience with the language to make it functional for them (cf. Horner, 1975). In place of the 'mother tongue principle', therefore, current research would appear to support the principle that literacy should be carried out in a language that the learner readily understands. A similar proposal was suggested by the Burundi delegate at the Abidjan Conference on Literacy Projects in Africa (UNESCO, 1964) and endorsed at the meeting of experts on the use of the mother tongue for literacy at the University of Ibadan in 1964 (UNESCO, 1964c). The proposal does not, of course, repudiate the mother-tongue principle. It rather incorporates and extends it.

III

The mother tongue ideal as it was elaborated in the 1951 report has been generally accepted in principle but widely ignored in practice. I would like to consider some of the factors that would seem to account for this, focusing in turn on political, economic, socio-cultural, demographic and linguistic factors in so far as it is useful to make such distinctions.

The need for political and cultural integration in nation states and particularly in states that have become 'self-governing' in the last two decades has led to the adoption in numerous instances of a single 'national' language which citizens are encouraged to acknowledge as a symbol of national identity. This has been a case for example in Indonesia, the Philippines, Malaysia, Ethiopia, Tanzania and numerous other States. In countries in which national languages as defined above have been designated, there is a tendency to stress the communicative functions of the language so selected in contrast to the functions both of non-indigenous languages and of local languages associated with distinct ethnic or cultural groups – and members of these groups are themselves conscious of the need to learn and of the advantages of learning the national language in most cases.[4] In reporting on literacy projects among the Ilamba and Turu peoples in Central Tanzania for example in the 1960s, Marian Halvorson remarked that 'it became difficult to persuade learners that they were learning more easily in their mother tongue because they understood what they were reading. As we visited classes, the question inevitably was asked: "why are we wasting time on our own language; we already know that. We are being delayed in learning Swahili" ' (Halvorson, 1970).

In many cases it has not proved possible to select a single language as a national language and a restricted number of languages have been selected for development as educational media. Within the last decade, for example, in Zaire five languages have been selected for particular development; in Senegal six languages have been selected and in Togo and Mali four languages respectively. Zambia and Uganda provide additional examples of States in Africa where the policy of selecting a limited number of languages as educational media has been practised for many years.

Inevitably in such cases many learners are obliged to become literate in a language other than their first language, even though the language concerned may be linguistically related to it. In the literature on literacy teaching two general reactions to this general situation are frequently encountered. One is to de-emphasise the problems involved, usually on the grounds that the linguistic aptitude of the learners is such that they will have little difficulty acquiring the language of instruction (cf. Taiwo, 1972, p. 35). The second type of response is similar to that given by the 1951 meeting of experts on African languages and English in Education in Jos, Nigeria, who argued that 'no matter how closely related the accepted language is to the mother-tongue, it does not embrace the individual characteristics of the culture and philosophy of a tribe which has to learn through a medium which is not its mother-tongue, . . .' (UNESCO, 1953b). Both reactions would seem to be open to question. No matter how easily a version of the colloquial variety of the language might be 'picked up' and used in casual interaction outside the home, learning to read and more particularly to write any language in a manner acceptable to educated native speakers is an exacting task, the difficulty of which it is irresponsible to minimise.

While many States have not found it necessary or expedient to designate a single national language all States find it necessary to adopt an official language or in the minority of cases official languages for written use in the operations of the legislative, executive and judicial branches of government. At higher administrative levels the communicative activities associated with such operations are generally facilitated by the use of a language with a wide range of specialised functions. This is particularly the case in sectors concerned with the application of modern technology in different forms. This is one reason why local languages as defined earlier are not generally utilised as official languages and why international languages are retained as official or co-official languages in the majority of states in Africa, for example. The resulting dilemma as it relates to literacy teaching was stated bluntly by the representative from Ghana at the 1974 Bamako Conference: 'teaching of the mother tongue is best but it leads to a dead end if the official language is different even foreign to national life and local culture. On the other hand, this foreign language might be essential for modernisation . . .'

In most multilingual States a number of local languages are used as secondary official languages for particular functions in departments or ministries dealing with such matters as Information and Broadcasting, Community Development, and primary education but the tendency is to employ them primarily as media of verbal rather than written communication.

It would perhaps be unnecessary to comment at such length on problems associated with the use of official languages were it not for the fact that responsible and well informed committees have made suggestions such as that 'the difficulties caused by the existence of many mother tongues in African countries will persist until these languages are given, in practice, the same status as the official languages used prior to independence.' (UNESCO, 1975, p. 4), and 'it is necessary to give such languages legal status as the official medium for education, administration and public relations' (UNESCO, 1976). Less specific demands have frequently been made to the effect that the status of languages used for literacy should be 'unequivocally established by consistent Government language policies, the most important of which concern the place to be given to the language in public life and in the educational system' (UNESCO, 1964c). The impression seems to be given occasionally by such statements that the planning required to achieve the desired results can be largely accomplished by government decree. Experience seems to indicate that this is seldom the case.

Karam (in this volume) and others have shown that the need for and the opportunity to use literacy skills develops as a consequence of or as an accompaniment to other types of social change, and governments have only limited control over the components of these processes of change. A point related to the one being made has been put somewhat more dramatically by Joshua Fishman as follows: 'the creation of writing systems is significant only in so far as it leads to the acceptance and implementation of writing systems. The latter are revolutionary rather than narrowly technical acts. They succeed or fail – on the basis of the success of the larger revolutions with which they are associated: revolutions in the production and consumption of economic goods . . . and revolutions in the distributions of power and influence. All of these both lead to and depend upon an increasing number of new texts and written records' (Fishman, 1971). It could be argued that this statement does not do justice to the development of literary expression as a manifestation of cultural as opposed to economic or political factors; nevertheless, it embodies a perceptive view of some of the complex factors that affect the use of written languages in social interaction. I am not of course intending to imply in these observations that it is not possible or desirable for language status planning of the kind suggested in UNESCO, 1975 to be accomplished, but simply making the point that it serves no practical purpose to oversimplify the complexity of the processes involved.[5]

On a related theme, the view is not infrequently encountered among educationalists that government measures to ensure that languages are taught and examined in the educational system will subsequently lead to their greater employment as written media in public life. The consultants to the 1964 UNESCO conference at Ibadan referred to above argued that 'the motivation of the adult to become literate in his own language is correlated in no uncertain terms with the status and prestige of that language and there is no doubt that the greatest single element contributing to this prestige is the place given to the African language in the educational system'. This last contention is, however, arguable. The fact that people are taught to read and write a language in school in no way ensures that they have either the need or the opportunity to do so outside the educational system (cf. Gorman, 1971, p. 383). The failure of the well-documented efforts to ensure the restoration and use of the Irish language, for example, through consistently pursued educational measures since the foundation of the Republic provides a telling illustration of the limitations of the school as an agency of language planning (Macnamara, 1971).

One further issue it seems appropriate to mention at this stage is the fact that the extent of culture change that is sometimes entailed when members of non-literate cultures are introduced to literacy activities is not always appreciated by those from outside the community involved (cf. Goody, 1968, p. 50). Dr. Maamouri has indicated that the social role of the literate person may not be immediately apparent in a cultural environment in which illiteracy is the norm (Maamouri, in this volume) and Op't Land has convincingly made the same point (Op't Land, 1963/4). This is particularly so in rural societies. In a paper issued by the Unesco Regional Office for Education in Asia this issue was discussed in the following terms: 'in origin, the act of reading is an urban act. On the other hand for thousands of years, and even today, in rural societies made up of villages often containing only a few hundred individuals, oral communication and face-to-face contact are sufficient for the multi-various relations of daily life. That is why illiteracy today is still first and foremost a rural occurrence. In a number of Asian rural societies, however, writing is by no means unknown. On the contrary, writing has existed and continues to exist as an institution personified by the scribe, which an illiterate person uses as a go-between to communicate with others at a distance. Unlike town dwellers, villagers do not feel the need to be able to read and write, because their every day life and the conduct of their family affairs do not involve this need (UNESCO, 1969)'. This statement touches on a further point not always taken into account by literacy advisers or those planning literacy programmes, namely, the existence in many cultures of traditional modes of transmitting and interpreting written information which can be viewed by those concerned as an alternative to the mode of individual literacy which is regarded as the norm in literate societies.

Because the daily activities of rural life have been satisfactorily conducted without the need for individual literacy adults often need to be persuaded that it is very useful for themselves (as distinct from their children) to learn to read and write. More particularly, there are many reports that indicate the difficulties of persuading adults that it is to their advantage to learn to read and write in their first language as distinct from the language of wider communication. It is common, for example, to encounter statements such as the following observation in the literature relating to literacy teaching: 'Niger officials, although encouraging literacy in French as a means of social and progressional improvement, and also of national cohesion, insist that the people of the rural areas be taught to read and write first in their native languages. The writer of our case study reports, however, that the local population show greater eagerness to become literate in French than in their own vernaculars. For many of them, the learning of French offers the only means of upward mobility, whereas their local customs and traditions have been quite satisfactorily transmitted in the past by a word of mouth, and all business has been carried on in the same way' (Shramm, 1964).

The proceeding paragraphs have raised issues broadly relating to ways in which political and economic factors influence attitudes towards literacy programmes in local languages, and before this issue is left aside one point might be made with regard to the emphasis placed on 'functional literacy' projects during the last decade or so. It is not coincidental that the majority of functional literacy projects undertaken during the recent Experimental World Literacy programme were conducted in national or official languages rather than in local languages. Most were specifically undertaken to further programme of economic development. As implied earlier, in modernising multi-lingual States the work domain tends to require the use of a common language or languages in which semi-technical information associated with developmental projects can be readily transmitted – except where strictly localised agricultural projects are involved. This is at least one inference that might be drawn from details provided about the languages used in programmes assisted by the UNDP (Special Fund) in the last fifteen years in activities in Algeria, Ecuador, Ethiopia, Guinea, Iran, Mali, Sudan and Tanzania. Only in Guinea were attempts made to conduct functional literacy projects in a number of local languages.

Again, in so far as functional literacy programmes emphasise 'continuous adult education fusing into genuine vocational instruction rather than once-for-all teaching of the three R's', (Blaug, 1966) literacy in a language of restricted communication has apparently been judged to be dysfunctional in many instances. It can of course be argued that 'truly functional literacy aims at encouraging an all round development in an individual', and at 'satisfying not only purely his economic needs but also his ethical, social and cultural aspirations' (UNESCO, 1973) so there is no *a priori* reason why functional literacy projects should not be conducted in any language. The fact remains, however, that where the primary emphasis of such programmes is to foster economic development there is a clear tendency for local languages not to be employed.

At the same time as international agencies and governments have shown increasing interest in the organisation of functional literacy projects with developmental aims, there has been a considerable decline in the number of literacy projects organised by independent religious bodies with missionary purposes. In the past such campaigns have tended to utilise local languages whenever feasible. In the pursuit of such purposes, in Africa and in numerous other areas particularly those formally occupied by Colonial powers, missionary groups have borne the main responsibility for codifying unwritten languages and developing orthographies for them; but in almost all States the influence of such bodies on the educational process has tended to lessen as the Central Governments of developing nations have extended their control over the formal educational system and over educational language policies in general.

In addition to political, economic and socio-cultural factors that serve to affect the use of languages in literacy activities, demographic facts are frequently taken into account in so far as they relate to these factors. The number of speakers and readers of a particular language and their distribution in a particular State or States is one of the factors that the 1951 report and numerous other committees have suggested should be taken into consideration when decisions are being made about the choice of languages for use in literacy projects. A number of commentators have made suggestions regarding what they consider to be the minimum numbers of speakers that might be required before a literacy programme in a particular language is justified. Lewis (1965) for example echoing an earlier suggestion of Berry (1953) suggested that 'where the number of speakers of a language falls below 10,000 it is probable that the language ceases to be of value for any purposes beyond the most elementary forms of group action and social cooperation.' The implication seems to be that below this number the literate speakers of the community would not secure what some consider to be 'the essential benefit of literacy i.e. the possibility of large scale communication' (UNESCO, 1968, p. 4). Clearly, whether numerical factors in themselves are considered to be deciding factors depends solely on what 'the essential benefits of literacy' are deemed to be, and this issue is open to argument. If the figure of 10,000 speakers were adopted as a criteria for the inclusion of languages in a literacy programme the majority of the approximately 5,700 languages spoken in the world would be necessarily excluded.

In practice, most programmes that have been undertaken in developing countries with government support in recent years have tended to involve languages whose speakers greatly exceed 10,000 in number. In Togo, for example, in a recent programme a figure of 100,000 speakers was adopted as a basis for the inclusion of language groups in a national literacy programme (UNESCO, 1975). The six languages involved in recent programmes in Senegal were each spoken by over 200,000 people. In Zaire the five languages on which attention has been recently focused – that is Swahili, Lingala, KiTuba, KiCongo, and TshiLuba – are each spoken by over a million people in that State; and More, in which literacy activity is being intensified in Upper Volta is spoken by over two million speakers.

While in principle it may seem invidious that literacy work in large numbers of local languages should be neglected, in demographic terms it is easy to see why this is the case in many States. There are more languages spoken in Tanzania, for example, than in the USSR, and more languages spoken in Camaroun than in the Soviet Union and Eastern and Western Europe combined. Yet there are almost three times as many languages spoken in Nigeria as in Camaroun. Many States outside Africa are also characterised by extreme linguistic diversity. Over 800 languages are spoken in Indonesia, for example, and well over 600 in Papua New Guinea. Moreover, as far as I can ascertain, the majority of the languages spoken in each of the countries mentioned above are spoken by less than 5,000 speakers. They are furthermore unstandardised, unwritten languages. It is apparent that the provision of an associated writing system for each of these languages – as the first stage in literacy activities, would require a far greater expenditure of human and financial resources than has yet been envisaged in the great majority of multilingual states and the next section in this paper refers to some of the problems attendant upon the provision of such systems.

IV

Before discussing 'linguistic' factors that might be said to affect the selection of languages for literacy activities in multilingual societies, it would seem sensible to outline in general terms certain of the more widely accepted current assumptions regarding the description of language behaviour in multilingual societies.

It is now generally accepted among sociolinguists that each speech community, whether mono-lingual or multi-lingual, can be said to employ a number of language varieties, which some linguists would refer to as the 'linguistic repertoire' of the community. The set of varieties may comprise different languages, dialects, registers and styles of speaking and writing.[6] The distinct varieties can generally be shown to have different uses or functions. And one speech community will tend to employ different varieties of the same language for functions which in another society might characteristically involve the use of different languages. The concept of the 'domain' of language use has been developed to help describe the fact that a particular language or variety might be characteristically used in situations which can be further described in terms of their place and time of occurrence and of the general purposes of the speakers or writers involved. For example, one language might typically be used in the locale of the home (family domain) while a different language might be used in the locale of the school (educational domain) or in the factory (work domain). Because of their association with particular domains the languages involved may in time be recognised as embodying or symbolising the values associated with those domains. Thus in a multi-lingual country such as Kenya, local languages such as Kamba or Kipsigis may be linked with the rural homestead and with the traditional values of primary groups; Swahili may be linked with town life, trade and the growing sense of national identity; and English with Government service, the professions and international communications (cf. Whiteley, 1971, p. 2). In terms of language functions the situation in this case can be considered at one level to be trimodal, in that a citizen needs to use three language codes *vis.* the local, national and international languages to participate fully in the communicative life of a nation.

At times organised effort may be directed towards extending the range of uses of a particular language or variety in relation to the uses of other languages in the linguistic repertoire of the community. Changes in function in almost all cases involve changes in form; so that, for example, the Board of Scientific Terminology in India was given the task in 1963 of devising approximately 350,000 terms in the field of science and technology to help facilitate the use of Hindi as an educational medium in these fields. Efforts must also be made to ensure that potential users become aware of the terms devised and that they actually use the language for the functions envisaged. When efforts to extend the form and functions of a language are made systematically by an authorised body it is now customary to refer to the process as being one of language planning. The terms status planning is frequently used to refer to attempts to extend language functions and the term corpus planning to efforts to extend form. In literacy activities types of corpus planning are involved in attempts to develop a standard form of a language for use in written work, for example, or to develop or reform a script or system of orthography. The attempt to get people to learn and subsequently to use a previously unwritten language for inter-group communication or to use a previously written language for a new range of functions involves a type of status planning. Status planning ultimately presents more complex problems than corpus planning since many of the difficulties that need to be overcome in the latter case are technical problems that can be initially solved by the linguist; whereas difficulties involved in altering the way people behave and in changing the sets of values and expectations that underlie these patterns of behaviour cannot generally be solved by technical expertise or by government decree. For social planning of this kind to succeed in democratic societies, people must be persuaded that it is in their short or long term interest first to learn and then to use additional language skills, assuming that the opportunities exist for both sets of activities. While there has undoubtedly been a development in the extent to which the technical problems involved in corpus planning in literacy work are understood by non-linguists, there does not seem to have been a corresponding development in the general understanding of problems involved in status planning, as the discussion in section three of this paper might have served to indicate.

After these preliminary comments some of the specific problems linguists may be faced with in developing writing systems can be considered. Two major undertakings are normally identified as comprising the main technical tasks that need to be undertaken by linguists in connection with literacy programmes. The first concerns the provision of orthographies and associated scripts for written languages; the second the revision of the writing systems that are considered for various reasons to be an obstacle to literacy acquisition or to the use of the language as a medium of widescale communication. A further task might involve the development of suggestions relating to the planned extension of the lexicon of a language to take account of additional functions envisaged for it.

Problems that may be involved in the first instance concern the determination of language and dialect boundaries and the consequent selection of the dialect to be used as a basis for transcription. These issues have been extensively discussed in the literature relating to literacy activities and in this paper I will simply refer to a limited number of cases to indicate the nature of the problem. Peter Itebete, for example, has discussed at length the problems involved in the development of a literary dialect for Luyia, a language with up to seventeen dialects spoken in Western Kenya. The solution adopted in the case of this language involved the development of a composite dialect based on a number of selected dialects. Like most previous attempts to develop 'union' languages the experiment had limited success in terms of the extent to which the literary dialect was used for purposes other than religious (Itebete, 1971).

Ultimately decisions on language boundaries do not, however, rest with the linguist. There are numerous examples of situations in which group speaking clearly related dialects of the same language have required the production of separate reading materials on the grounds that they consider themselves to be clearly distinct. This was the case, for example, with speakers of Kalaɓari̥, Okrika and I̥ɓ̥ani, three dialects of North Eastern Ijo̥ in the river state of Nigeria (Williamson, 1972). Conversely, in the same project, single readers were produced with the consent of speakers of Ikwerre though the linguistic diversity suggested to the linguists involved in the project that two distinct languages could be recognised.

The problems of selecting a dialect base for a written language is further complicated in the case of Pidgin and Creole languages. Typically, moreover, there are social factors that tend to encourage the adoption of orthographic conventions associated with the language of wider communication with which the language is associated – despite the fact that such an orthographic system may not be the most logical or effective way by which to represent the spoken language. This issue has been extensively discussed with regard to the situation in Haiti, for example (cf. Burns, 1953; Hall, 1966; Paul, 1965).

The amount of time needed for a linguist to develop a preliminary orthographic system based on a selected dialect and to make the necessary study of the grammar and lexicon of the language has been variously estimated – most suggestions ranging from between three to five years (Armstrong, 1962, 1974; UNESCO, 1965a; I.B.E., 1965). Such estimates are, however, entirely dependent on such factors as the linguist's familiarity with the language or with related languages and the purposes for which the programme has been undertaken.

If the first major factor that militates against the ideal that every person should learn to read in a written dialect that is based on the dialect he speaks is that numerous languages have no related literary forms, the second is that large numbers of the literary dialects that do exist are not directly related to the associated languages as these are currently spoken. This is an inevitable consequence of the fact that spoken languages constantly change. While the problems involved in the revision of writing systems appear in some cases to be less complex than those discussed above this is not, in fact, generally the case. There is abundant evidence to show that even minor changes in orthographic conventions frequently give rise to intense disagreement among speakers of the languages concerned even when scripts are a relatively recent development (cf. Tucker, 1952, 1971; Rabin, 1971; Gorman, 1971a).

The matter is complicated in a number of developing States by the fact that existing orthographies were in many cases prepared by missionary workers on a relatively unscientific basis; and in a considerable number of cases different orthographies were developed in neighbouring countries for transnational languages, or in other cases for a single language in the one country. A notable cooperative effort was made in 1966 to develop a unified orthographic system for six language groups in neighbouring States in West Africa – the languages being Hausa, Kanuri, the Mande group, Fulani, Songhai-Zerma and Tamashek; and by the following year an alphabet of forty five letters had been agreed upon for use with the latter four of those languages in literacy activities in Mali (UNESCO, 1966; Dumont, 1973). Joint research on this scale is rare, however, and it is still the case that 'even now, almost none of the African languages, including the major vehicular languages is equipped with an established orthography which can bear close critical examination' (UNESCO, 1964c).

The employment of orthographic devices or methods of word or clause segmentation that have no psycholinguistic reality for native speakers of a language can make it very difficult for them to learn to read the language. The point is made here because it is not uncommon to encounter the view that if the first language is used as a medium of instruction the acquisition of literacy is necessarily a relatively simple matter 'for if that is done, all that the student will have to do will be to acquire literacy, a matter of several months at the most'.

(UNESCO, 1961, annexe, p. 116). If there is a close 'fit' between significant features of the sound system of the language and the orthographic system it is possible that non-readers can learn to decode written words in the time suggested, with a degree of efficiency. Such correspondence is, however, the exception rather than the rule with regard to existing orthographies in Africa and India, for example. An illustration of this point might be made by a reference to Dholuo, a language spoken by well over a million people in East Africa. Dholuo is generally written as if it had a five vowel system. In fact ten vowels need to be distinguished orthographically if speakers of the language are to read it with relative ease (cf. Gorman, 1972); and in this and numerous other tone languages the problem of the orthographic marking of tone has still not been effectively dealt with.

It is perhaps necessary to make the additional point that readers may experience considerable difficulty in interpreting a written text in their own language that is based on a dialect other than their own. John Gumperz has described a situation in a North Indian village, for example, where literate speakers of Hindi in rural areas found it extremely difficult to interpret a community development pamphlet written in the literary standard dialect (Gumperz, 1964); and in such circumstances, the question has to be asked whether the written medium is the most effective or appropriate channel for the transmission of the information being conveyed.

I will not discuss further the problems of literacy work in diglossic situations where the written language differs greatly from the spoken form as these have been discussed elsewhere; and certain of the problems consequent upon the use of scripts of extreme complexity which were developed before the advent of printing are touched on in the following section. Even this cursory treatment of these issues will perhaps have served to indicate further the relative superficiality of the statement cited above regarding the ease with which literacy skills can be expected to be acquired in the mother tongue.

Having made this point, however, it is perhaps as well to also recall an observation of Kenneth Pike to the effect that 'People can be taught to read *any* alphabet (1) provided ample time is given and (2) provided they desire to read strongly enough.' (Pike, 1947, p. 213)

V

In this concluding section I would like to comment on some language-related problems frequently encountered after an orthographic system has been devised and accepted.

When previously unwritten languages are used in teaching, staff and administrators have to be trained to read and write them – as was the case in Mali in the recent campaign involving the use of four local languages (referred to in Mali as 'national languages').

The problems that are almost invariably encountered with regard to the provision of reading materials in such situations have been extensively discussed. Charles Richards indicated a number of these in his lucid discussion of the problem (Richards, 1963). Among these were those problems resulting from the fact that in many cases there were few people capable of 'writing easily' in the language concerned, and frequently few also with the technical knowledge needed to write on topics being emphasised in the programme. Even where such skilled writers were available the vocabulary of the language concerned might not have been developed for describing technical operations.[7]

In connection with many earlier 'mass' literacy campaigns, a considerable amount of thought was given to the problems involved in developing an indigenous literacy tradition and of encouraging indigenous writers. Since it is not generally one of the purposes of functional literacy schemes to enable participants to create their own literature there has been less discussion of the question in recent years. However, members of Summer Institute of Linguistics and others not generally involved in functional literacy campaigns have advanced interesting proposals for encouraging writing in indigenous languages, for assisting writers faced with the difficult and original task of establishing conventions for a natural written style acceptable to native readers, and for producing written materials for use at relatively low cost (cf. Gudschinsky, 1974; Wendell, 1975; Catos, 1973; Henne, 1973).

It is a fact that literacy skills can be lost more easily than they are gained and that reading skills do not advance beyond the level of a laborious decoding process unless sufficient opportunities are provided for reading to be practiced. Because of factors such as these the African ministers of education who considered aspects of this problem in 1961 suggested that 'Adult literacy campaigns should not be launched until there is an adequate and continuing output of attractive and interesting reading matter available for those who have attained different levels of literacy' (UNESCO, 1961). If such criteria are adopted, it is possible to appreciate the validity of Jeffries' assertion that 'the provision of reading materials presents a problem in itself of such magnitude as almost overshadows the problems of organising the teaching of literacy' (Jeffries, 1969).

In his work on Mass Media and National Development, Schramm pinpointed some of the technical problems that have to be faced in publishing activities in languages other than languages of wider communication and international languages (Schramm, 1964). These include problems of finance, equipment, personnel and even the availability of printing paper. He remarked on the widespread lack of even moderately up-to-date composing and printing machinery, noting in passing that no such machinery was manufactured anywhere in Africa, Latin America or Asia (except Japan) at the time of writing. Most countries in these regions are also dependent on countries in Europe and Canada for their supplies of newsprint, and where books and newspapers are available people are often too poor to be able to afford to buy them.

From the point of view of the linguist, however, the solution of such difficulties is less intractable than problems that result from the use of scripts of extreme complexity that were developed in many cases before the advent of printing. It has, for example, been maintained that 'the single factor held most responsible for blocking the rate of growth and limiting the usefulness of functional literacy in Pakistan is the unsuitability of the scripts to write the languages of Pakistan from machine transcription and mass reproduction' (Marble, 1969). These problems can be overcome just as the problems consequent upon the use of ideographic scripts have been overcome in the printing of Chinese and Japanese, but in many areas little has as yet been done to define let alone solve such obstacles to the extension of literacy.

There is one additional point I would like to focus on before making a number of personal observations and suggestions relating to the use of local languages in literacy activities. This point concerns the use of such languages for purposes of transitional literacy with the ultimate aim of achieving literacy in the language of wider communication.

Throughout the literature concerning the use of local languages in adult education, one encounters the argument that even though the ultimate intention of the learner and the goal of the project entails learning to read in their national or official language, it is preferable and educationally advisable for literacy to be acquired in the first language with subsequent transition to the other language. The 1951 Report stated that 'Even though they (the participants) must ultimately learn to think and speak and read in the second language this goal is, we believe, psychologically and pedagogically as a whole best achieved by two short jumps (that is from illiteracy to literacy in the mother tongue, and from literacy in the mother tongue to literacy in the second language) than by one long jump, (that is, from illiteracy in the mother tongue to literacy in a second language)'. This case was argued eloquently by Kenneth Pike in a paper submitted to the 1951 Conference. He argued therein that literacy in the vernacular was in many cases the most effective way of introducing groups speaking previously unwritten languages to unified national culture and the national language associated with it. 'By reducing unwritten languages to writing, by the preparation of primers in these languages and by the preparation and utilisation of initial agriculture, health, political and moral pamphlets in the early stages of education for these groups one can more rapidly reach the goal of a culture unified through the one dominant national language. The use of the vernacular becomes a bridge to the attainment of the national unification desired' (Pike, 1951).

In such a programme Pike suggested that diglot material should be employed, i.e. materials utilising both languages e.g. bilingual dictionaries, both to provide motivation to learn and the mechanism for learning. (The term 'diglot' materials has been used to refer to courses varying from those which simply involve the introduction at some stage of orthographic symbols used in the second language to courses in which a systematic attempt has been made to teach learners to speak and read the second language after literacy has been attained in the first language.) In view of the frequency with which situations are encountered where 'the official language is the medium of instruction favoured by both the government and the illiterates . . . but the local language is the logical medium of instruction from the point of view of the efficiency of learning' (Gudschinsky, 1953), it is perhaps surprising that fewer programmes involving the use of diglot materials have not been mounted though, as I say, they have been frequently suggested and occasionally utilised, generally on a limited scale (cf. Burns, 1953; Murane, 1970). The basic problem is that diglot courses that actually involve teaching learners to speak as well as to read a second language are more complex to design and administer, and involve far greater expenditure of human and financial resources than most monoglot courses entail, and few governments are either able or inclined to expend such resources on adult illiterates.

We have already seen, however, that a considerable number of the functional literacy projects recently mounted in multilingual states have involved the use of national or official languages in literacy programmes for adults who were in many cases unable to read their first language or who had little experience in doing so, and for whom the language of instruction was a second or third language. There appears to be good evidence that in such cases the participants' spoken knowledge of the literacy medium is a determining factor with regard to the acquisition of reading and writing skills. The evaluation unit of the UNDP/UNESCO work-oriented adult literacy pilot project in the lake region of Tanzania stated in their final report, for example, that 'one factor seems to be operating with pre-empting effect against the attainment of acceptable results in literacy, and that such was the problem of the Swahili language as a medium in literacy teaching.' (The report adds, however, that this hypothesis needs further investigation to confirm or disprove it) (UNDP/UNESCO, 1973). In view of the fact that Swahili is very widely understood in Tanzania, and that literacy teachers were instructed to ensure that the meaning of what was taught was understood by participants in the programmes (Viscusi, 1971), the use of the second language as the medium of instruction would appear to be more appropriate than would be the case in many other States where the national language is less widely understood. Yet its use did appear to cause learning problems, and it seems likely that these stemmed primarily from the attempt to teach the medium and the content of instruction simultaneously, and from the attempt to teach language and literacy skills at the same time. It is possible that further research will indicate that at least one of these problems could be overcome if, in such a situation, courses that were designed to ensure that learners have a full understanding of the language used in the text before they are expected to master the written representation of those elements. The point is no doubt an obvious one but it has implications for the design of literacy courses in national or official languages that would result in courses rather different in structure from any of those developed in the Experimental

World Literacy Programme, for example, and this would be the case even if diglot materials are not employed.[8]

Conclusion

In case what has been said in the proceeding sections has given a contrary impression, I would like to state my conviction that in the long term it is both desirable and feasible that all languages currently spoken should be provided with a written form. If justification of this policy is needed it would seem to me sufficient to point to those instances, admittedly few in modern times, in which the availability of a writing system has enabled individuals to produce creative work and to record in this medium their unique insights; or those cases in which the writing system and the literature associated with it has become a focal point of cultural pride and development (cf. Walker, 1969). The possibility of such developments, no matter how remote or how far in the future, appears to me to be perhaps the strongest argument in support of the efforts that would need to be required in this and subsequent centuries to ensure that each language had an associated writing system.

At the same time it would seem to be advisable for national governments and international agencies to initiate or intensify programmes in which a selected language or languages are systematically developed as a literacy medium and incentives are provided for people to learn and to use the language(s) selected. The first essential is that men should become literate; that they should become literate in their first language seems to me to be an important but secondary consideration. Such development programmes are in operation in a number of States but there are very few states in which corpus and status planning as earlier defined are systematically undertaken in relation to literacy teaching.

I have discussed elsewhere types of basic and applied research that would appear to be requisite or at least desirable in a systematic approach to literacy planning (Gorman, forthcoming) and valuable suggestions regarding research and documentation needs are to be found in numerous conference reports on literacy teaching (cf. UNESCO, 1964; 1972; 1975). I will not discuss these issues in further detail, therefore, in this conclusion.

This paper has had the general aim of illustrating the fact that the linguistic aspect of research on literacy frequently shows itself to be of overriding importance in the solution of literacy problems. In particular, I have argued that assumptions regarding the choice of languages in literacy instruction need to be reconsidered in the light of developments in linguistic inquiry and with regard to current practice in multilingual states faced with the problem of widespread illiteracy. In presenting my arguments I have laid emphasis on factors that militate against the attainment of literacy in local languages of restricted communication, as it is apparent that the cause of universal literacy has not been fostered in the past generation by discussions or reports that have ignored or minimised the manifold technical and socio-cultural obstacles to this desired end.

Notes

[1] Goel and Saini, for example, use the term 'mother tongue' to refer both to the 1,652 language varieties identified in the 1961 census in India and to the fifteen languages enlisted in the constitution as regional official languages. This usage is defensible in terms of the 1951 definition but confusing in terms of the arguments they advance to support the use of mother tongues in education (Goel and Saini, 1972).

[2] Such views were influential among the founders of the International Institute for African Languages and Cultures and they are further reflected in such works as that of Smith (1929).

[3] Scholars such as Kelly have remarked on the 'unfortunately heavy reliance on abstract sociological, psychological, and philosophical terminology whenever there is a discussion of mother tongue aims.'

[4] The term *Local Language* is here used to refer to a language associated with a specific ethnic group or community in a multiethnic society. The term *National Language* is used here to refer to a language that is adopted in a particular state by consensus or decree as an instrument of national unity. The term *International Language* refers to a language employed for communication between members of different national groups and in the work of international organisations, as for instance are the working languages of the United Nations Organisation. A *Transnational Language* is one spoken by communities in neighbouring states.

[5] The situation in India can perhaps be taken to illustrate the difficulties that have to be faced by a number of States that have made a determined effort to displace the language of the former Colonial power in some of its uses as an official language. Aside from the enormous technical problems involved which are, however, ultimately solveable, considerable resistance to such change has been generated, both from members of linguistic groups other than those speaking the indigenous language selected to replace the previous official language and from members of the bureaucracy on grounds of efficiency and self interest. Changes in language functions of the kind envisaged involve radical if not revolutionary social change (cf. India, 1957; 1961; Das Gupta, 1970).

[6] Dialects are associated with different regions or, less frequently, with different social groups; registers associated with different specialised uses.

[7] This point might be illustrated by an observation in a report submitted to UNESCO on a functional literacy project in Ethiopia in which information about Cooperatives was being impared: 'Cooperation is a new subject in Amharic literature. Everytime an English draft was given for translation into Amharic by two different persons, they used different Amharic words for the same English word . . . (Tyagi, 1973)'.

[8] Marjorie Halverson has suggested, for example, that in such a course, language learning periods might be scheduled to precede instruction in a pre-reading course (Halverson, 1970), and this is only one of several developments that might be envisaged.

[9] This remark paraphrases a statement in Neijs, 1958.

A Selected Bibliography: Language and Literacy

In addition to covering references given in the preceding papers, this bibliography relates to the general theme of Language Choice in Literacy Activities in Multilingual Areas. It does not cover developments in linguistics or related fields; nor does it relate to the study of reading and writing or the teaching of these skills, except as regards adult literacy activities. These topics would require separate bibliographies. In compiling it I have primarily cited works published in English and, less extensively, in French. Works in Spanish are well covered in the bibliographies published by Crefal. (Bibliografía Sobre Alfabetización, I & II, Pátzcuaro, Michoacán, Mexico)

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After completion of this paper the following significant work was published:

Bamgbose, A. ed. *Mother Tongue Education, the West African Experience*, The Unesco Press, Paris, and Hodder and Stoughton, London, 1976.